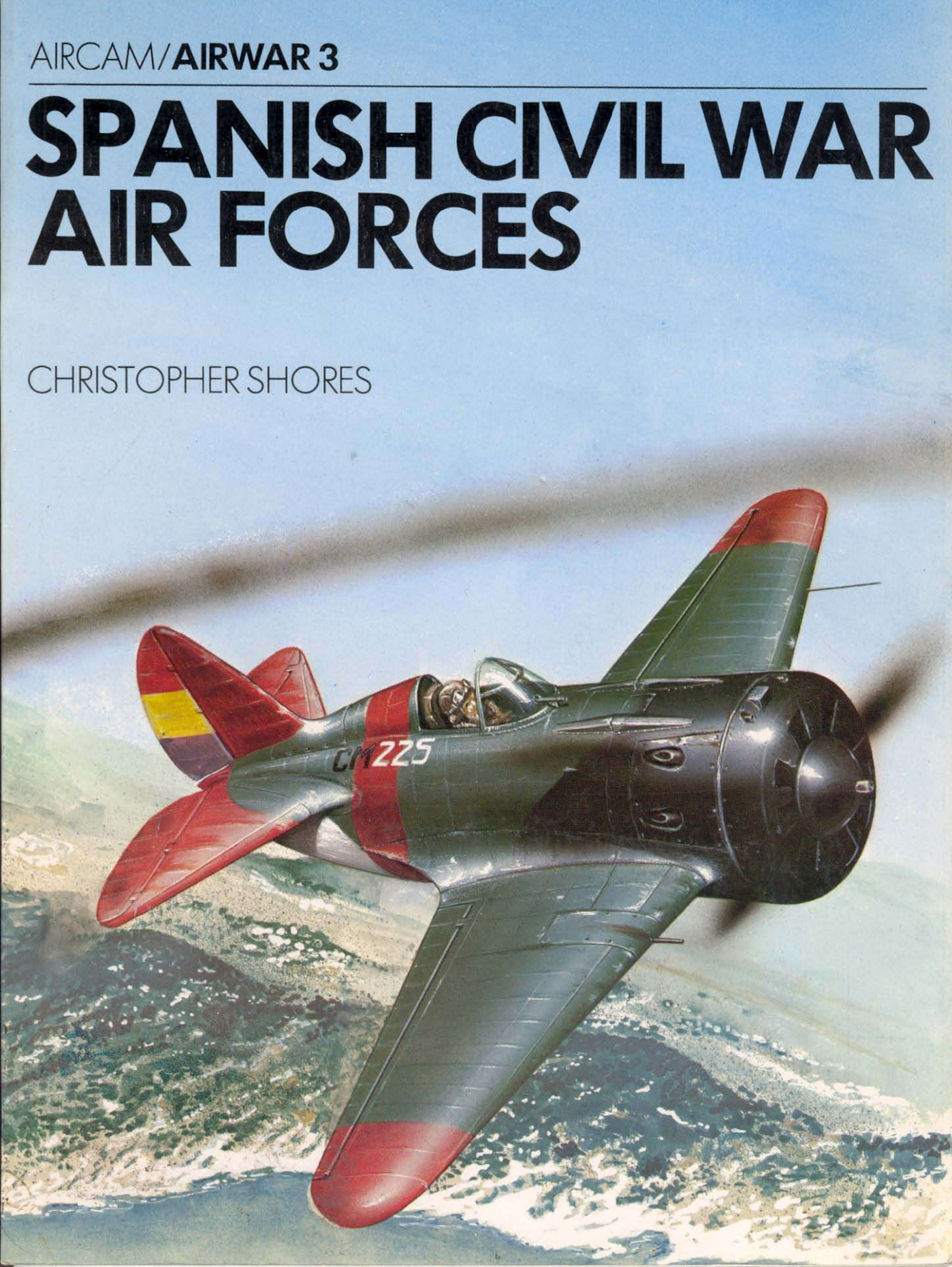
AIRCAM/**AIRWAR 3**

SPANISH CIVIL WAR AIR FORCES

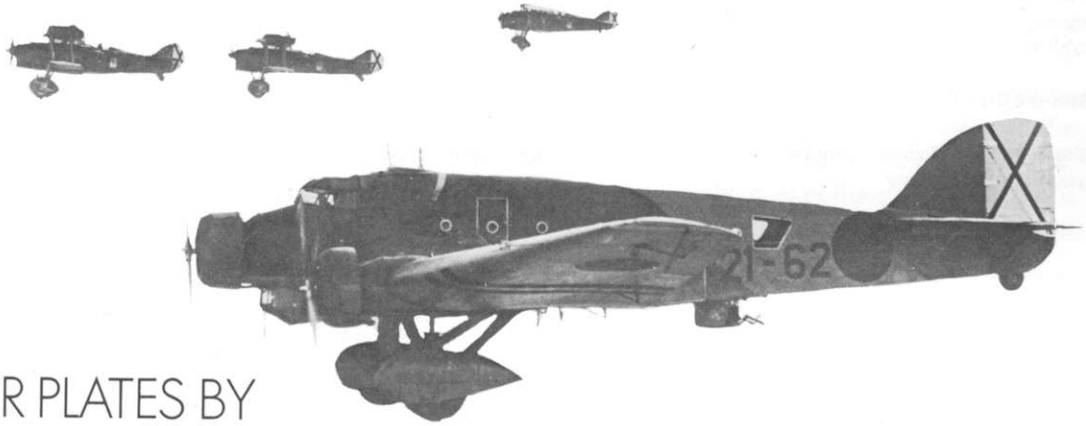
CHRISTOPHER SHORES



AIRCAM/**AIRWAR** SERIES EDITOR: MARTIN WINDROW

SPANISH CIVIL WAR AIR FORCES

BY CHRISTOPHER SHORES



COLOUR PLATES BY
TOM BRITTAIN
AND GERRY EMBLETON

OSPREY PUBLISHING LONDON

Published in 1977 by
Osprey Publishing Ltd
12-14 Long Acre, London WC2E 9LP
Member company of the George Philip Group
© Copyright 1977 Osprey Publishing Ltd

This book is copyrighted under the Berne Convention. All rights reserved. Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright Act, 1956, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, electrical, chemical, mechanical, optical, photocopying, recording or otherwise, without the prior permission of the copyright owner. Enquiries should be addressed to the Publishers.

ISBN 0 85045 135 3

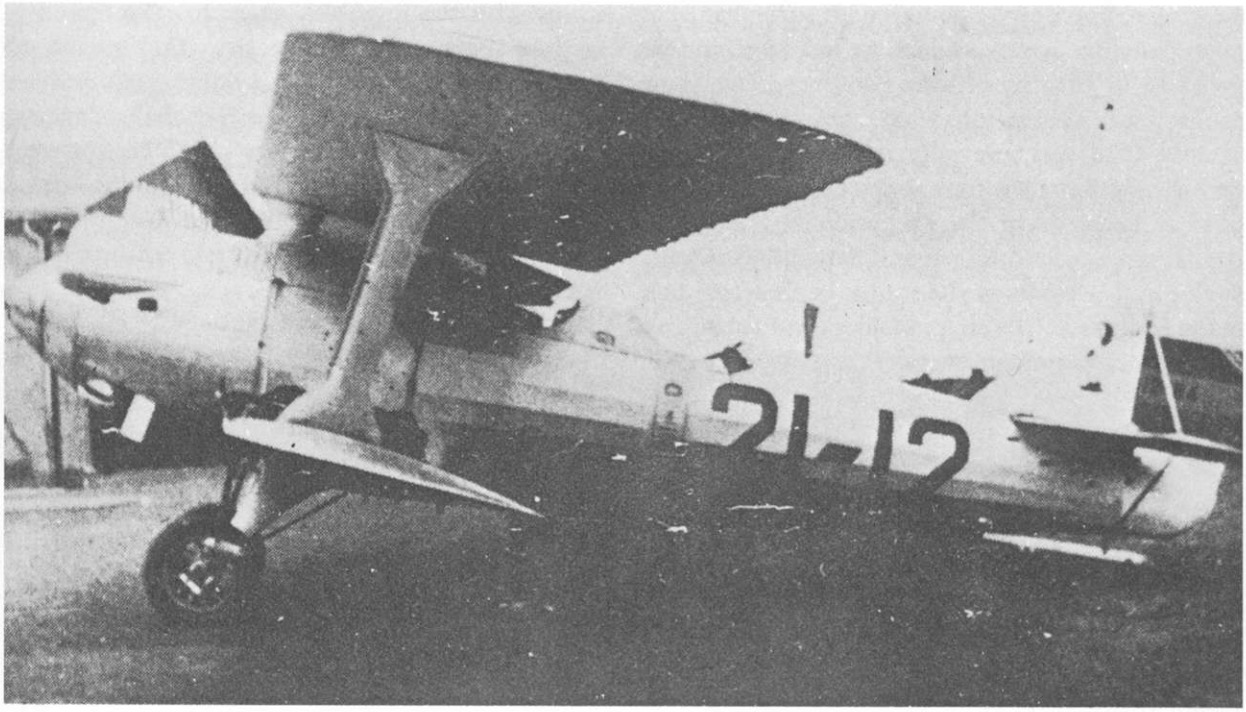
Filmset by BAS Printers Limited, Wallop, Hampshire, England and printed in Hong Kong

INTRODUCTION

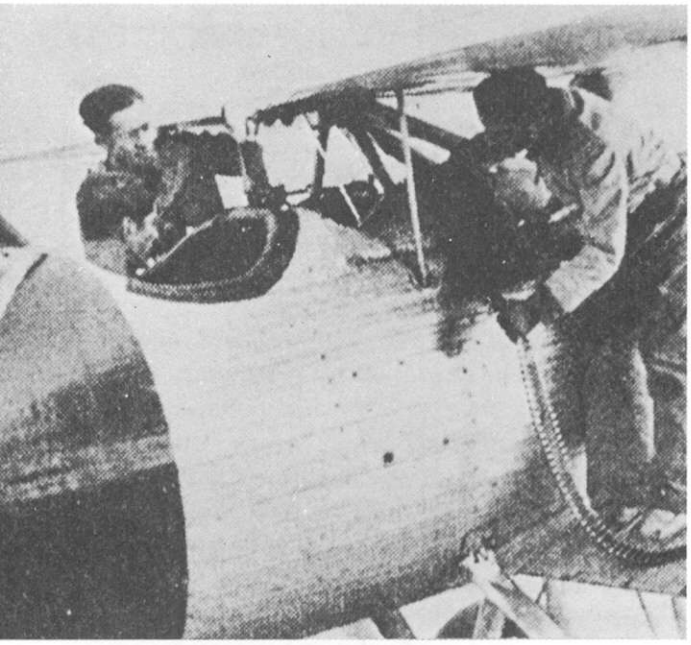
On 18 July 1936 Spain, after a long period of domestic upheaval, plunged into one of the most savage and protracted civil wars in modern history. Given the national tendency to passionate dogmatism rather than reasoned consensus, this was hardly surprising. Fratricidal warfare has been a feature of Spanish history for centuries.

On the one side was the elected Republican government. Basically of socialist persuasion, but well-leavened with mutually hostile extremist groups such as outright Communists and Anarchists, it had sought to break the historical stranglehold of church and aristocracy by the now familiar – but then radical – methods: support of trade unions, redistribution of wealth by taxation, secularisation of schools, expropriation of land, and so forth. The impact of this programme on the more conservative elements of the population was rendered the more shocking by the undoubted excesses of unscrupulous fanatics who sheltered in the Republican camp, and for whom the means – murder, arson, and intimidation – seemed as desirable as the proclaimed ends.

A natural fear of the destruction of all that they valued in society made the conservatives more receptive to the propaganda spread, in their turn, by the more extreme Rightist factions such as the fascist Falange movement and the royalist Carlists. The army, long involved in politics, had been sunk for some years in an uncharacteristic and sullen



1. Used by both sides in relatively large numbers during the opening stages of the war was the Breguet Br.XIX reconnaissance-bomber. A dated design, due for early replacement had the war not broken out, the *'Sesqui'* remained on active service on the secondary fronts for many months. (via C. J. Ehrengardt)



2. The main Spanish fighter in 1936 was the licence-built Nieuport NiD.52 sesquiplane. Republican ground crews are seen re-arming an aircraft which has not yet been camouflaged, retaining its pre-war natural metal finish. It does however feature a wide red band around the fuselage, immediately behind the cockpit.

inactivity; but, despite government surveillance of potentially dangerous leaders, an insurrection was prepared in 1936 by officers convinced that their country was sliding into total anarchy. The coup of July 1936 was unevenly successful. The conservative Nationalists took control of the north and west of Spain (with the exception of the Biscay coastal strip around Bilbao and Santander); Cadiz, Seville and Cordoba in the south, in a narrow belt to the frontier at Gibraltar; Majorca and Ibiza; and the Moroccan colonial territories. The Republic held the whole east coast, the bulk of central Spain, and the south-east, as well as Basque nationalist areas on the northern coast.

Within two days of the coup, militias were forming and the battle-lines were drawn. In initial operations the Nationalists widened their territory in the south and south-west, and linked with the north-west to bring the whole Portuguese frontier under control. Among other local gains was a salient thrust threateningly into Republican lines to relieve the besieged garrison of Granada. During this early phase the forces and operations gradually became more formalised. In resources of manpower and technology the two sides approached a balance. While the bulk of the navy and air force remained in Republican hands, much of the army, and the majority of the more experienced junior officers of all services, supported the Nationalists, who enjoyed superiority in trained leadership throughout, and the advantage of a unified and centralised control; the Republic was dogged by factional confusion, and the physical separation of their forces. Any contact between the Madrid front and the Biscay front depended on dangerous overflights of enemy territory, or a long sea voyage.

The Nationalist cause depended at first, however, on the tough professionals of the Army of Africa. If these Spanish, Moorish and Foreign Legion troops could be transported to southern Spain the Nationalists could expect an early advantage; if not, their future was uncertain. Since the Republican navy stood guard with powerful warships, the prospect was unlikely.

At this early stage both sides appealed for aid abroad, and the rest of the world became involved, according to political ideology. The mass of the European and American intelligentsia aligned themselves with the Republic, eager to take the long-awaited opportunity to resist 'the spread of international Fascism'; but a substantial number volunteered to fight with the Nationalists against 'the spread of the Red menace'. Both groups were sincere; and the early material aid sent by various countries was initially motivated by ideology, rather than by the cynical military self-interest so marked at a later stage.

The Air Force in 1936

The Spanish Air Force of 1936 was small and obsolescent. The main fighter was the Nieuport NiD 52 sesquiplane, of which some 40 remained of 125 built under licence. It was flown by three fighter groups: *Grupo de Caza num 11* at Getafe, near Madrid; *num 13* at Barcelona, and *num 12* at Granada. The thirteen-odd machines of the latter formed the nucleus of the Nationalist fighter force in July 1936. Most numerous aircraft in service was the Breguet Br.XIX two-seat biplane recce-bomber, of which some 60 remained in government hands, although some were seized by the National-

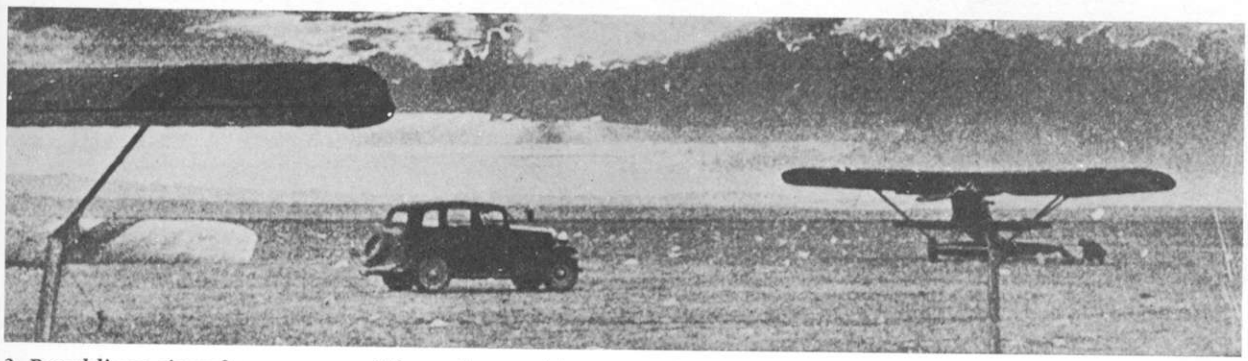
ists. It was flown by *Grupos num 21* and *31* at Madrid, *num 22* at Seville, *num 23* at Barcelona, *num 1* in Africa, and by several training units. Small numbers of other types were pressed into service by whichever side took over their airfields. A relatively large naval air arm also remained largely under government control, including 20 Vickers Vildebeeste recce/torpedo-bombers. Finally, three Hawker Spanish-Fury fighters and one Spanish-Osprey – unarmed examples sent in the course of licence-building negotiations – were retained by the government near Madrid and used at first as high-speed recce types.

The Nationalists were presented with three more NiD 52s on 21 July when they landed at Granada, unaware that it was in enemy hands. Two days later Ten. Narciso Bermudez de Castro flew one to victory over a Republican Nieuport – the first aerial victory of the war; and on the 25th Ten. Miguel Guerrero Garcia, in another, shot down a Dornier Wal flyingboat over the Straits while escorting transports from Africa. On 29 July he shot down a Vildebeeste, on the 31st another, and on 1 August a Br.XIX.

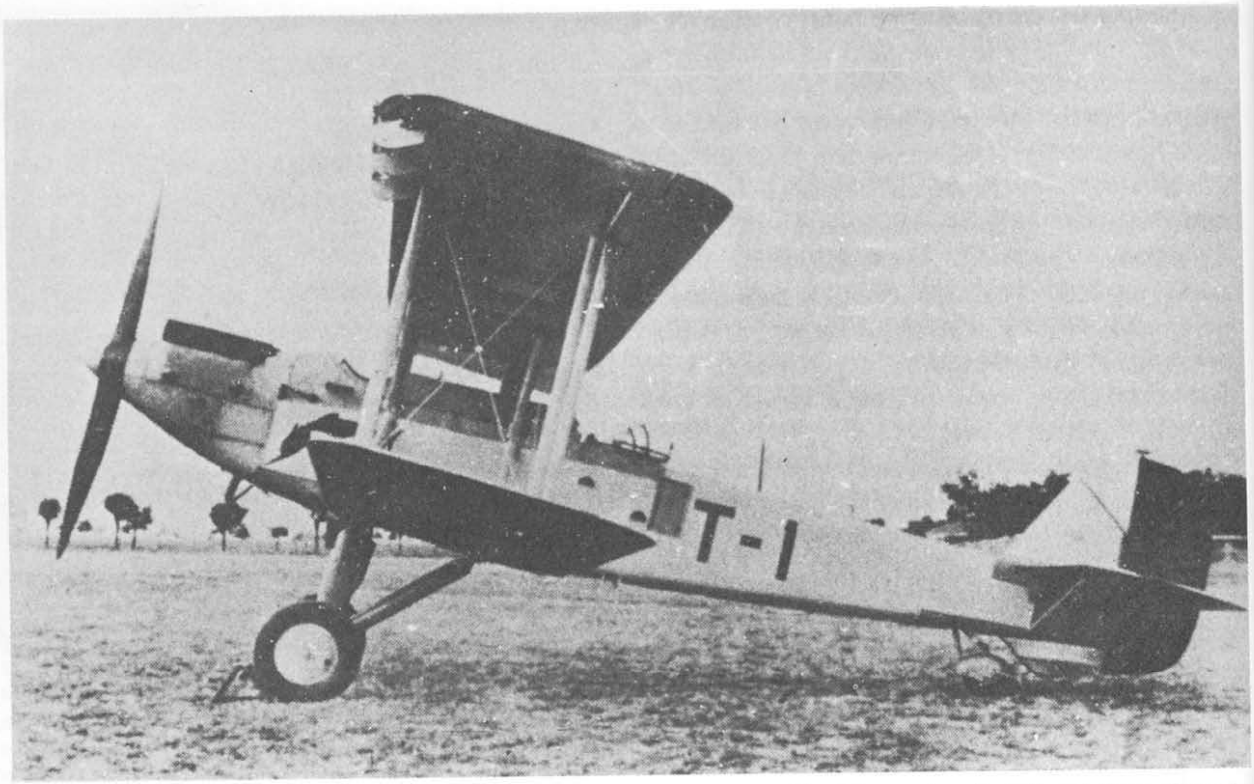
Superiority in the air was achieved for the first time by small elements flying in support of Nationalist troops in the south. DC-2s, Fokker F.VIIs and other types alternated improvised bombing raids with transport lifts from Africa, though not without loss; a Breguet and two light aircraft fell to ground fire late in July, and on the 31st a NiD 52 was shot down by a Republican DC-2. The most important event of this period was the speedy response of Germany and Italy to the appeal for transports made by the Nationalist commander in the south, General Francisco Franco y Bahamonde. On 27 July Lufthansa pilot Flugkapitän Hanke took off from Berlin and flew his Junkers Ju52/3m to Spanish Morocco; the machine made its first lift of Nationalist soldiers from Tetuan to Jerez de la Frontera on the 28th. In all, 20 Junkers, arrived before the end of August, operating under the immediate control of Oblt. Rudolf Freiherr von Moreau. An operation so vulnerable to enemy action required protection, and on 6 August the *S.S. Ursano* docked at Cadiz with six crated Heinkel He51 fighters, 20 AA guns, and 86 Luftwaffe volunteers under Major von Scheele, who were to instruct the Spanish.

Early in August the first Italian aircraft began operations from Tetuan – SM.81 bombers, the survivors of a dozen led by Capitano Bonomi on an eventful flight from Sardinia. Initial missions involved clearing the waters between Morocco and southern Spain of enemy shipping, and escorting convoys from Ceuta to Algeciras. The first day's operations saw blood drawn, when the Savoias bombed a cruiser which was shelling Larache on 5 August. A dozen Fiat CR.32 biplane fighters were also sent to Morocco on 14 August, together with volunteer pilots; officially these joined the Spanish Foreign Legion (*el Tercio*) to form a Legionary Air Arm. Ready for air test by the 18th, the Fiats went into action soon afterwards.

Although the airlift of troops was undertaken at first with the sparse means locally available, it was the Junkers which tipped the balance; in all, they transported 36 field guns, 13,523 men, 127 machine



3. Republican aircraft are prepared for a dawn raid. In the left foreground can be seen the wings of a Breguet Br.XIX, on which are painted narrow red bands (not, it will be noted, impinging upon the aileron at this stage). Outboard on the top surface of the upper wing, the Spanish national roundel is still in place. In the right background is a Nieuport NiD.52.



4. Vickers Vildebeeste torpedo-bombers were in service with the Spanish Navy in 1936, and all were retained by the Republicans, being involved in several early actions in the south, and over shipping bringing the African Army to Seville. These aircraft differed from those in British service mainly in being powered by an Hispano-Suiza 12 Lbr. inline engine, rather than the Bristol Pegasus IM.3 radial. (via C-J. Ehrengardt)

guns and many thousands of pounds of stores in the first decisive military airlift in history. Even before the airlift was completed nine Ju52/3ms were transferred to form the Nationalists' first three three-plane bomber *escuadrillas*, while the SM.81s temporarily took over the transport rôle. Oblt. von Moreau led the Junkers into battle with a raid on the battleship *Jaime I* in Malaga harbour, the warship being effectively disabled by two direct bomb hits from 1,500 feet.

Eighteen Spanish fighter pilots had joined the Nationalists in July, soon followed by a noted aerobatic pilot, Capitan Joaquin Garcia Morato (on his return from holiday in England). The He51s represented a chance to achieve significant results over the outclassed Republican NiD 52s; and the first Nationalist fighter unit was formed at Tablada, Seville on 15 August under Capts. Rambaud and Morato. Morato had already scored his first kill, over a Vildebeeste on 12 August while flying a NiD 52. He 'christened' the Heinkel with one of the Republic's newly arrived Potez 540 bombers over Granada on the 18th; almost simultaneously Ten. Julio Salvador Diaz-Benzumea shot down a Nieuport and a Breguet, and possibly a second Breguet. Disappointing performances by the other, inexperienced Spanish pilots led to a successful request by the German instructors that they be allowed to fly operationally. For the rest of August Lts. Eberhard, Henrici, Trautloft, Knüppel and two others undertook sorties, and Eberhard's patrol of three claimed six kills during that month.

Northern operations now demanded air support, as only a single Nieuport had been available in the north-east during July. A bomber unit of D. H. Dragons and Fokker F.VIIs was formed and sent north in August, followed by SM.81s, Ju52/3ms and He51s released by the completion of the Moroccan airlift. On 21 August von Moreau made the first air-drop of food to the besieged Alcazar of Toledo; and on the 23rd eight Junkers and three He51s raided Getafe airfield near Madrid. Southern

fighter defence was taken over by first three, then six Fiat CR.32s at Seville. On 18 August Sottotenente Ceccarelli, on his first sortie in one of these, shot down a Nieuport but collided with a Breguet.

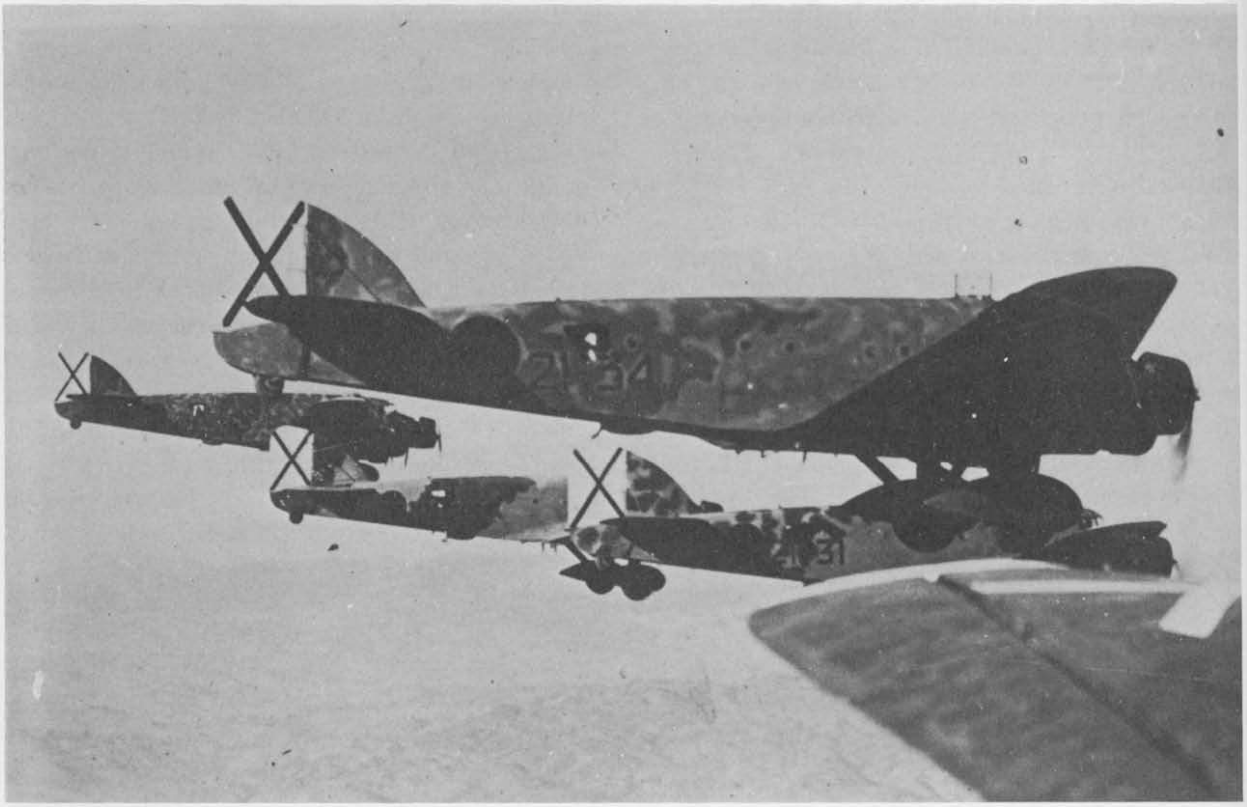
Aid to the Republic

France, whose socialist administration led by Leon Blum was sympathetic, was the only country to ignore the pointless League of Nations prohibition on outside interference and to respond to the Republic's appeal at this early date. Equipment began to find its way south down a tactfully obscure route. The writer André Malraux began forming a volunteer *'Esquadra España'* at Toulouse, which received seventeen new but unarmed Dewoitine D.372 parasol-wing monoplane fighters originally destined for an eastern European customer. The pilots, led by one Abel Guides, included at least three former First World War pilots; they arrived at Madrid on 5 August and until the fourteen D.372s, which actually arrived, were armed they flew whatever was available. The dates of their first claims are suspect, as no Italian machines were flying in the area on 14 and 15 August, when Darré and Gouinet both claimed two-seat recce aircraft and Michel Bernay a Fiat.

A second volunteer unit, the International Squadron, was set up at Getafe under Capt. Martin Luma, sharing the field with *Grupo num 11*, which now augmented its Nieuports with the Furies. Many nationalities were represented in the new unit – Spanish, Russian, Italian, British and American – but the equipment was mainly French. The D.372s first supplied were followed by ten similar D.371s by early November. Seven D.501 monoplanes and two cannon-armed D.510s arrived in due course, as did five Loire-Nieuport LN.46 monoplanes and between fifteen and 27 Spad S.510 biplanes.

On 8 August the first seven Potez 540 twin-engined *'multiplace de combat'* machines were sent; by the end of 1936, 49 had come south, together with four Po.543 radial-engined variants from a Rumanian order. These formed the main Repub-

5. Spain had received three Hawker Spanish-Furies just before the outbreak of war, as pattern aircraft for a licence-production version, intended to replace the NiD.52 in service. One of these fighters is seen here during the first days of the war, its normal markings of roundels and rudder stripes supplemented by red wing bands, and red rectangles on the sides and top of the fuselage. (Franz Selinger)



6. One of the first types supplied to the Nationalist insurgents by the European dictators was the Italian Savoia SM 81 bomber, used initially for shipping patrol, bombing, and troop transport. For many months they were flown by Italian crews only, although surviving aircraft were to be handed to the Spaniards during 1938. These are aircraft of the *25° Gruppo B.P.* over Aragon. Note the manner in which the original segmental camouflage has been partially converted to a mottled finish. (G. D. Giorgio via Nicola Malizia)

lican bomber force, a new international unit being formed in August. Finally, a number of Bloch MB.200 or MB.210 bombers are reported to have reached Spain – perhaps as many as 30–35 – but lack of photographic or written evidence precludes further details. Further aid was promised by the USSR – for payment in gold! – but French machines bore the brunt of combat until late in the year. The loss of the first Po.540 on 18 August, described above, was followed on the 27th by that of Ten. de Haro's Dewoitine at the hands of Sergente Magistrini in a Fiat.

Markings had now been decided upon. The loss through mistaken identity of a NiD 52 early in the war led to the abandonment of the Republic's tricolour roundels. Broad red bands were painted round the fuselage and chordwise round the wings of government types, the national colours being retained only as rudder striping. All colour was removed from Nationalist markings. White rudders would now bear a black St. Andrew's Cross; and inboard of white wingtips appeared three narrow chordwise black bands. Large white St Andrew's Crosses appeared above the wings, while a plain black disc was added to lower wing surfaces and fuselage sides. In the latter position the disc later acquired the red Falangist yoke-and-arrows motif in 1939.

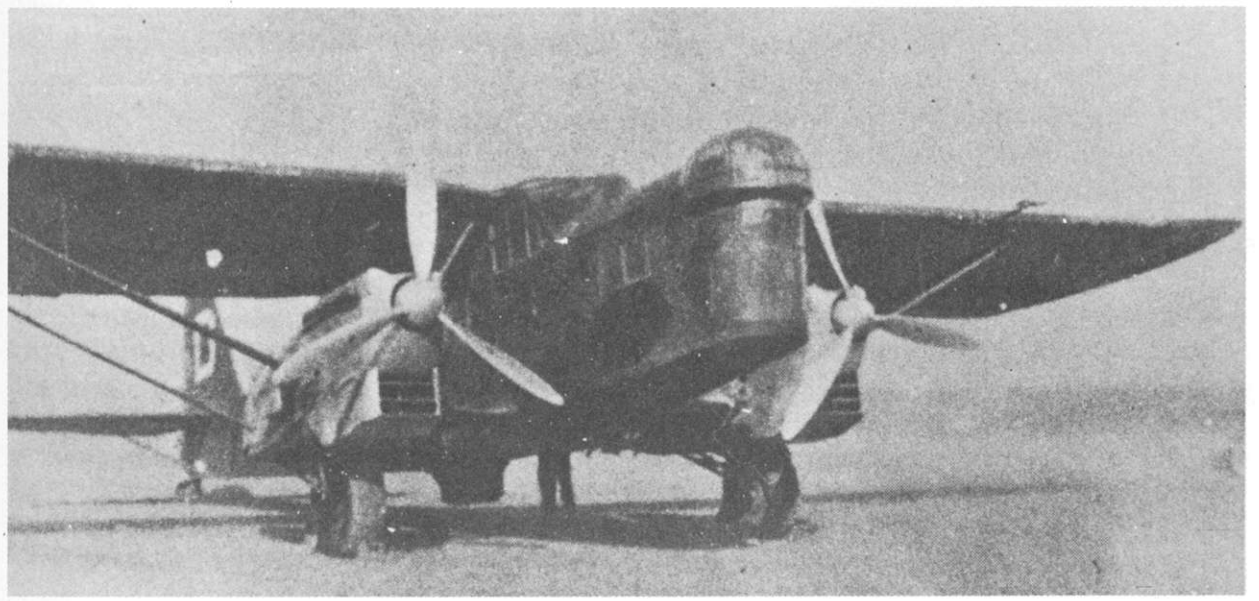
Following the German operational debut, six of the Ju52/3ms were formed into a bomber Staffel – *'Pedros y Pablos Escuadrilla'* – under von Moreau. The unsuccessful Rambaud unit was disbanded and pilots dispersed onto other types, and the Germans took back the Heinkels. Early in September the second Italian Fiat squadron flew up to Caceres, led by Capt. Dequal (alias 'Limonesi'). Here Morato joined it, followed by Capt. Angel Salas Larrazabal and Ten. Salvador. Two Breguets and five fighters were shot down in its first combat on 11 September, including a NiD 52 destroyed by Morato – his first

Fiat victory – and two kills credited to Magistrini. Two more kills on the 13th cost the life of the Italian-American Ten. Patriarca. Ten. Franceshi fell on the 16th, but four enemy aircraft were destroyed, one a Po.540 claimed by Morato. He then forced one of the Furies down in Nationalist territory on the 20th (it was later test-flown), and on the 26th claimed a Breguet for his eighth victory. Morato, followed by Guerrero and the Italian Magistrini, was now the outstanding fighter pilot in Spain – a position he never relinquished. By 22 September six Italians had at least two kills, and their success, together with serviceability problems, was making serious inroads into the Republicans' fighter strength.

September also saw nine more He51s arrive for the Germans; they passed the three serviceable survivors of the first batch back to the Spaniards, who also received 20 He46 army co-operation machines and three or four ex-airline Ju52/3ms. The He 46s – disappointing in service – formed *escuadrillas 1-E-11, 2-E-11* and *3-E-11*. On the 24th, the German He51 *Staffel* and the Dragon-Fokker *Grupo* moved to Leon to support a Nationalist advance into the western Biscay sector. As Nationalist pressure on the Madrid and southern fronts persisted bomber activity increased on both sides, and on 23 September Republican Po.540s bombed the Nationalist cruiser *Canarias*, causing slight damage. On the 25th the first Nationalist Ju52/3m fell over Toledo, apparently to an LN.46 flown by Locatelli, an Italian with the International Squadron. That day Capt. Salas shot down the Po.540 depicted on p. 26.

October 1936 marked a major reorganisation of Nationalist strength as the march on Madrid continued. From Breguets rendered airworthy, five units – *1-G-10* to *5-G-10* – were formed, and a seaplane *grupo*, mainly of Dornier Wals, was numbered *1-G-70*. A Spanish and an Italian unit of Meridionali Ro.37bis general purpose biplanes were formed, and a third CR.32 unit arrived to bring the total of available Fiats to 30. The Ro.37bis was successful, and replaced the He46s on the Madrid front; these were moved to secondary fronts in Asturias and Aragon.

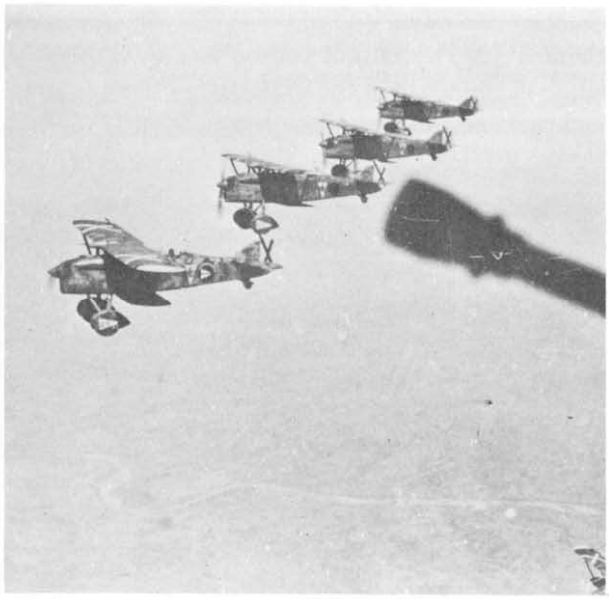
Throughout the month there was fierce fighting over Madrid as the Italians fought to wrest superiority from the Republicans, whose first Spad S.510s were now committed to action with some success. Between 14 and 17 October the Fiats claimed six Dewoitines for no loss over Madrid, while in the south in the same period three fighters and two Br.XIXs were also claimed destroyed. Both



7. First major aerial assistance to reach the Republican cause came from France, in the shape of the Potez 540. This *'multiplace de combat'* initially became the Government's main bombing type, operating both day and night. Flown at first mainly by international volunteer pilots, these aircraft suffered quite heavy losses to Nationalist fighters. (via C-J. Ehrengardt)

the Breguets fell to Morato on the 18th; on the 16th he had shot down an LN.46 in an action which also caused a Fury to crash-land on return to Madrid. The very last LN.46 apparently fell on the 21st near Getafe. Republican fighters were now thin on the ground around Madrid; but the first Russian equipment was already being unloaded at Cartagena, and Soviet personnel had started on-the-spot preparations from 10 September. Mid-October saw 150 more Red Air Force men arrive, including pilots and instructors; some joined international units for the time being, including Ivan Kopets, who flew fighters, and bomber pilots Ernst Schacht, Victor Jalzunov and Ivan Proskurov, who briefly flew Po.540s.

Priority was given to the Tupolev SB-2 bombers ('Katiuskas') which would form a new *Grupo num 12*, entirely Russian-manned at first. This modern twin-engined monoplane made its first raid on 29 October; the formation was led by Capt. Arkadi Zlatotsvietov. With its useful top speed, the SB-2 was to prove difficult for the CR.32s to intercept;



8. Destined to be the major Nationalist fighter throughout the war, the Fiat CR 32 had arrived in small numbers within days of the war beginning. Used in large numbers by both the Spanish and Italian units, the aircraft was to gain for itself an enviable reputation. A formation of *16° Gruppo C.T. 'Cucaracha'* fighters. led by a *Squadriglia* commander's aircraft, are seen from the side gunner's hatch of an SM 81. Note the barrel of the Italian-made 7.7 mm Lewis machine gun in the foreground. (A.M.I. via Nicola Malizia)

on that day Capt. Angel Salas happened to sight them from a greater height, and shot one down, but this victory, and that five days later of Ten. Adriano Mantelli (alias 'Arrighi') were lucky coincidences.

Two freighters had delivered crated Polikarpov I-15 biplane fighters during October – 30 to Bilbao and 25 to Cartagena – together with Russian pilots led by Lt. Gen. Yakov Shmushkevich. A Lithuanian Jew, Shmushkevich used the name 'General Douglas' in Spain, where he proved a courageous commander, sometimes flying missions himself. (He survived them, to fall to one of Stalin's firing squads in 1939.) The two *escuadrillas* formed in the north were entirely Russian, while the two in the east contained some Spaniards. Moving from Los Alcazares to Madrid early in November, these latter appeared in action on the 14th. Capt. Pavel V. Rychagov led ten I-15s in attacking and damaging a Ro.37bis and sending down the CR.32s of no lesser pilots than Capt. Dequal and Serg. Magistrini. Dequal survived but soon returned to Italy; Magistrini did not survive..A German Ju52/3m was also shot down and a Spanish one forced to crash-land. This grim augury for the forthcoming Nationalist drive on Madrid was partly erased next day. Nine Fiats took on fifteen I-15s and some Po.540s, claiming seven fighters and one bomber for the loss of Capt. Maccagno, leader of the third Fiat *escuadrilla*; two aircraft fell to Morato.

REPUBLICAN AIR SUPERIORITY

The He46 units in Aragon needed fighter support – a single NiD 52 was hardly adequate – and three German He51s flew in from Leon in mid-October: those of von Howald, Strümpell and Henrici. They were faced by half a dozen French machines and pilots from Guides's unit, together with four old Gourdou-Leseures and, later, three I-15s sent from Madrid. This quiet front erupted on 17 October; thirteen Republican aircraft attacked the mixed Heinkel formation, but lost five of their number – three to Henrici alone.

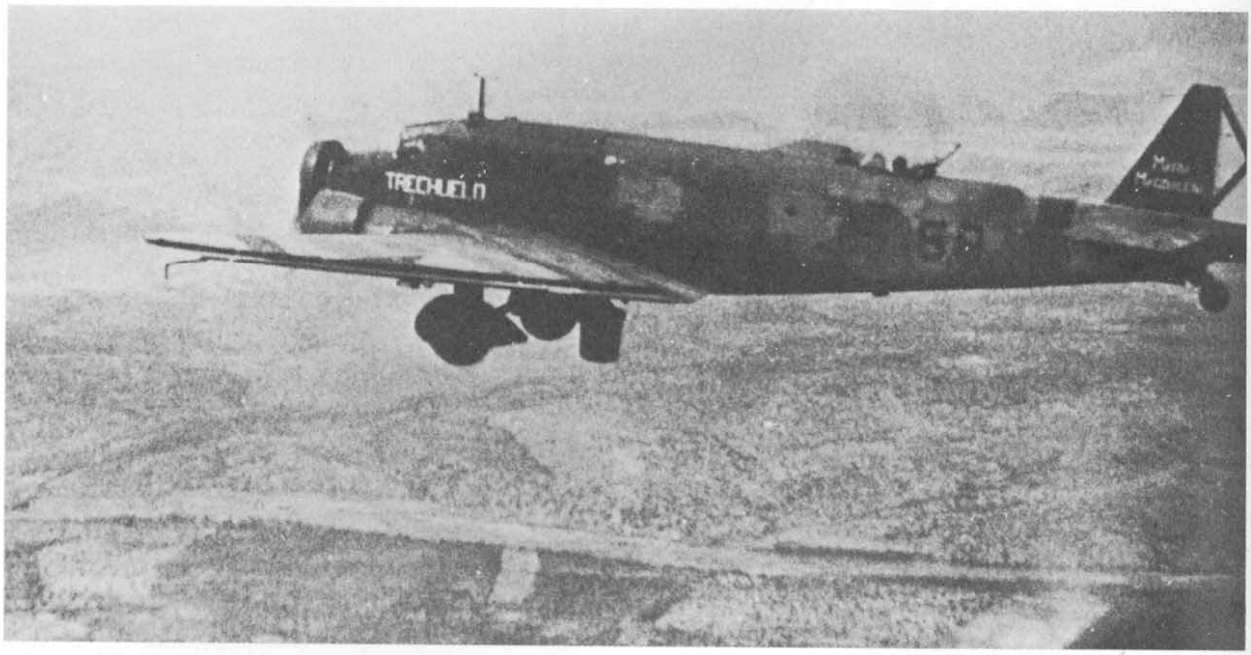
Meanwhile even more modern equipment was arriving from Russia. The first 31 Polikarpov I-16 Type 5 monoplane fighters arrived, with crews,

9. Several types of French fighter were sent to Spain, but the first received in sufficient numbers to equip a full unit was the Dewoitine D.371/372. One of these aircraft of Andre Malraux's *'Escuadra España'* is seen here on a Spanish airfield after application of camouflage paint and Republican red band markings. (via C-J. Ehrengardt)

during October. They were quickly formed into three entirely Russian units – 1^a, 2^a and 3^a *Escuadrillas de Moscas* – to bring Republican fighter strength up to five modern squadrons on the Madrid front with two more in the Biscay area. These latter now supported the only Republican offensive in the north, together with a rag-bag of Bristol Bulldogs, Potez 25s, DC-2s, Dewoitines, Blochs, and other small fry collected in the region. Many of the foreign volunteers who had flown here had tired of their hopelessly inadequate equipment and left, but about 30 remained, including some Yugoslavs. Since the German units had now moved to Avila on the northern edge of the Madrid front the Nationalists in Biscay were supported only by the Dragon-Fokker *grupo* and some Breguets; and given the general scarcity of aircraft on this long front, few notable engagements occurred before the Red offensive petered out.

On 8 November the Nationalist drive on Madrid opened, and the Republican militia fought desperately to protect their capital. On the 11th came the most effective Republican air operation so far when bombers caught the German Ju52/3ms and He51s and Spanish He46s on the ground at Avila and inflicted heavy losses. The third Fiat *escuadrilla* now arrived to provide better fighter cover in the area. Two days later they, and the remaining He51s fought a big battle with the I-15s. The Russians claimed six Junkers before the fighter action. An *escuadrilla* commander, Capt. S. F. Tarkhov, baled out with four bullets in his stomach but died later. German losses were Eberhard, leader of the He51 *Staffel,* and Henrici; the Italian Capt. Mosca was shot down and captured, and Ten. Mariotti force-landed. Morato claimed an I-15 – his fifteenth victory – while Salvador and Salas each claimed their fifth victories. Henrici's loss was keenly felt, as he had been regarded as a budding ace-of-aces.

Three days' heavy fighting followed, the I-16s fighting their first action on the 16th and suffering their first loss next day. During this period the leading I-15 pilot, Pavel Rychagov (known as 'Pablo Palencar') with four He51s to his name, was shot down but baled out successfully. One Enrico Loresco died when he was sent down in flames. A grim reminder of the hatreds engendered in civil war occurred during these actions. On 15 November an Italian Communist, Primo Gibelli, who had returned from fifteen years in Russia to fly, was



10. The Junkers Ju 52/3m was the first foreign type to reach Spain in July 1936. Initially it was to be the main workhorse of the airlift of troops from Africa. It then formed the main heavy bomber equipment of the Nationalist air force, and the *Legion Condor*. It remained active in this role with the former until the end of the war. A Spanish-flown bomber of this type is seen here on the way to the front for a daylight raid.

shot down over Pinto in a Breguet. Later a box inscribed simply 'Valladolid' was air-dropped over Barajos airfield. It contained Gibelli's dismembered body.

The Legion Condor

German aid was now vastly expanded and reorganised. In mid-November 4,500 Luftwaffe volunteers arrived with 20 Ju52/3ms, fourteen He51s, six He45 recce biplanes, and single examples of He59 and He60 floatplanes. With a Flak detachment, signals, an operations staff, and two companies of Army-manned PzKpfw I tanks, this force formed the basis of the *Legion Condor*; it was commanded by Generalmajor Sperrle, with Oberstleutnant Wolfram von Richthofen – cousin of the First War ace – as Chief of Staff. Reinforcements soon brought the establishment up to:

Kampfgruppe/88	Three *Staffeln* of Ju52/3m bombers
Jagdgruppe/88	Three *Staffeln* of He51 fighters
Aufklärungsgruppe/88	Two recce *Staffeln*, one of He70 high-speed monoplanes, one of He45 biplanes
Aufklärungsstaffel See/88	Nine He59 floatplanes and one He60 floatplane
Flak/88	Four batteries of 88mm guns and two of 20mm light automatic flak cannon
LN/88	Signals
S/88	Operations staff

Existing Junkers and He51 units formed the 1st *Staffeln* of *K/88* and *J/88* respectively.

In December the Italian *Aviacion del Tercio* became the *Aviazione Legionaria*. The three Fiat CR.32 units became the *24ª*, *25ª* and *26ª Squadriglie* of *16º Gruppo C.T. 'Cucaracha'*. The SM.81 units became *213ª* and *214ª Squadriglie* of *24º Gruppo 'Pipistrelli'*. The Ro.37bis unit became *1ª Squadriglia Autonomo Osservazione Aerea*.

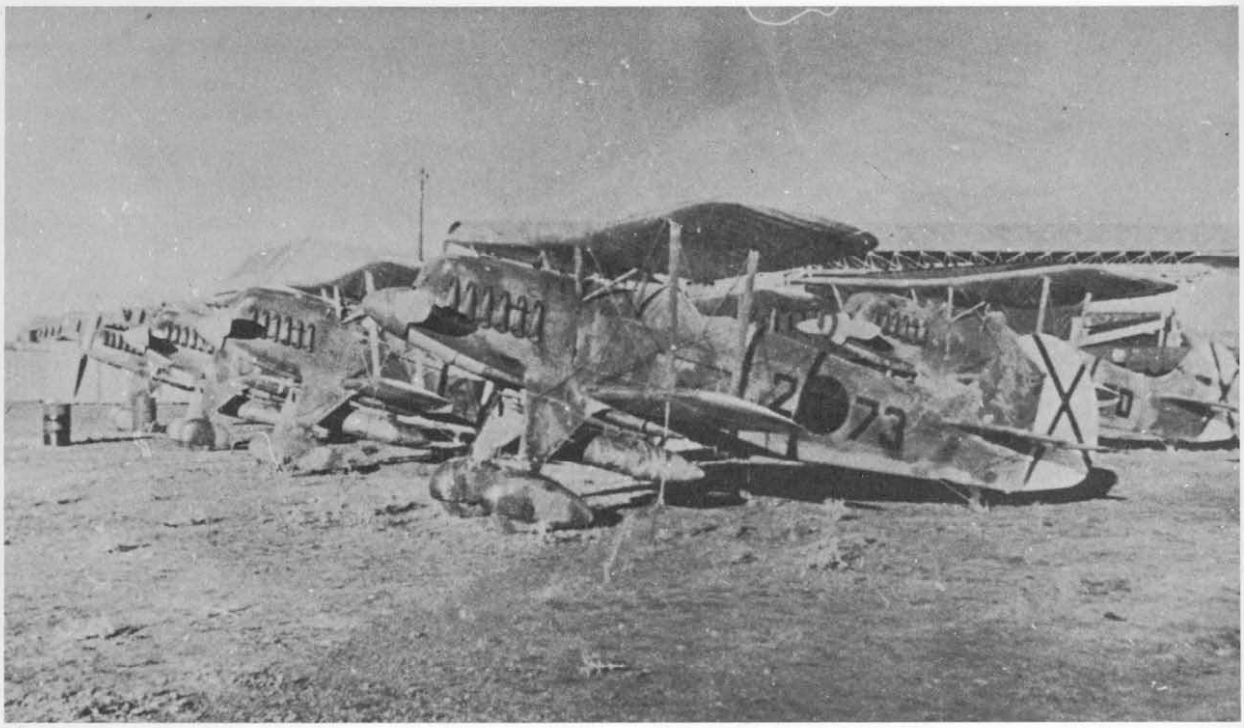
The Nationalists now formed their Ju52/3ms into the *1ª*, *2ª* and *3ª Grupos*, each with two small *escuadrillas*. In December the Mixed Bomber Group – the old Dragon-Fokker unit – was finally disbanded and its machines dispersed for second line duties. Three more He51s were purchased, allowing

11. Three of the most famous Spanish fighter pilots of the war are seen here together. *Capitan* Narciso Bermudez de Castro (left) was one of the first Nationalist fighter pilots, but was killed during the war; *Capitan* (later *Major*) Joaquin Garcia Morato (centre) was to become the leading fighter 'ace' of the war, with a final total of 40 victories; *Capitan* Miguel Guerrero Garcia (right) was the first successful Nationalist fighter pilot, claiming four victories while flying a Nieuport NiD.52 during the early days of the war.

formation of two three-plane *patrullas*. Three CR.32s obtained from the Italians formed the *Patrulla Azul* – 'Blue Patrol' – in December, giving Morato a chance to operate autonomously at last. In January 1937 the He46s were grouped into two *grupos* of two *escuadrillas* each, *1-G-11* and *2-G-11*.

In mid-November, with the Nationalist drive on Madrid bogging down, Franco intensified air raids on the capital – a decision which horrified opinion abroad. Nevertheless it was the Russian aircraft which now began to dominate the front. Republican units were proliferating. *Grupo num 14* appeared in November, with a mixture of older types, and in December *Grupo num 20* formed with Polikarpov R-5 and R-Z general purpose biplanes. The I-16 *escuadrillas* were amalgamated into *Grupo num 21*, with an eventual planned strength of six *escuadrillas* each of twelve aircraft; R-5 and SB-2 units would each have three *escuadrillas* of ten aircraft each. (In fact few units managed to maintain this strength.) The R-5s and R-Zs made their debut at the beginning of December with an attack on Talavera airfield by eighteen machines; an SM.81 was destroyed and two damaged. One attacker was claimed by flak and three more by Ten. Cenni, one of two patrolling Fiat pilots. Three Nationalist Ju52/3ms were damaged two days later when the Polikarpovs bombed their field.

Despite the unremitting effort by the Nationalist pilots and their allies in November and December, the initiative was swinging to the Republic, and morale among government forces rose as Madrid continued to defy Franco. Falling spirits were noticeable among the thinned Italian fighter units, previously aggressive fliers. By the end of 1936 five pilots had been killed and five captured; one of the latter subsequently died. Three more had been wounded; Ten. Mantelli, one of the most successful pilots, was among those who had escaped unhurt after being shot down, but Cenni, with six aerial victories and a balloon to his credit, was among the captured. Col. Bonomi ordered his pilots not to cross the lines in future except in formations of at least fifteen. This attitude contributed to the formation of the independent Nationalist 'Blue Patrol' – Morato and his Spanish



12. The Heinkel He 51B formed the initial fighter equipment of the German *Legion Condor*, and was also flown by Spanish pilots throughout the war. Although quite successful on introduction, the He 51B was outclassed when Russian fighters entered service with Republican units. It was then relegated to ground attack duties, in which role it performed successfully throughout the war. The aircraft seen here formed part of the equipment of *2 Staffel, J/88*, during 1936/37. (Franz Selinger)

comrades had already displayed a tendency to 'do their own thing'. They moved south in December to support Breguet units *3-G-10* and *4-G-10*.

Aragon, now devoid of Nationalist fighters, was the scene of a Republican push in December. The two patrols of Spanish He51s were rushed there, and on the 22nd fought a Po.540 and six escorting I-15s. The bomber and one Heinkel fell in this action, but shortly afterwards four of the five remaining Nationalist fighters were ground-strafed by I-15s, effectively ending Nationalist air operations in the region.

The end of 1936 saw the departure of many of the foreign volunteer pilots. Malraux's unit was disbanded in November, after suffering significant losses but inflicting respectable casualties. Guides, one of the few men who remained in Spain, claimed six fighters and five bombers, and Darré and Bernay each claimed three kills. Many of the other foreign pilots had proved to be of dubious value – ill-disciplined, hard-drinking soldiers of fortune whose greed for pay was more noticeable than their flying prowess, despite the accounts they invariably sold the pulp magazines on returning home. However, numbers of foreigners were still arriving; a new group of Americans, British, and others were assembled at Los Alcazares at the turn of the year, and they were joined by some of the Yugoslavs from the north. Those who proved suitable were generally posted to the Breguet and Nieuport units on secondary fronts.

'Chirri' vs. 'Chato' and 'Rata'

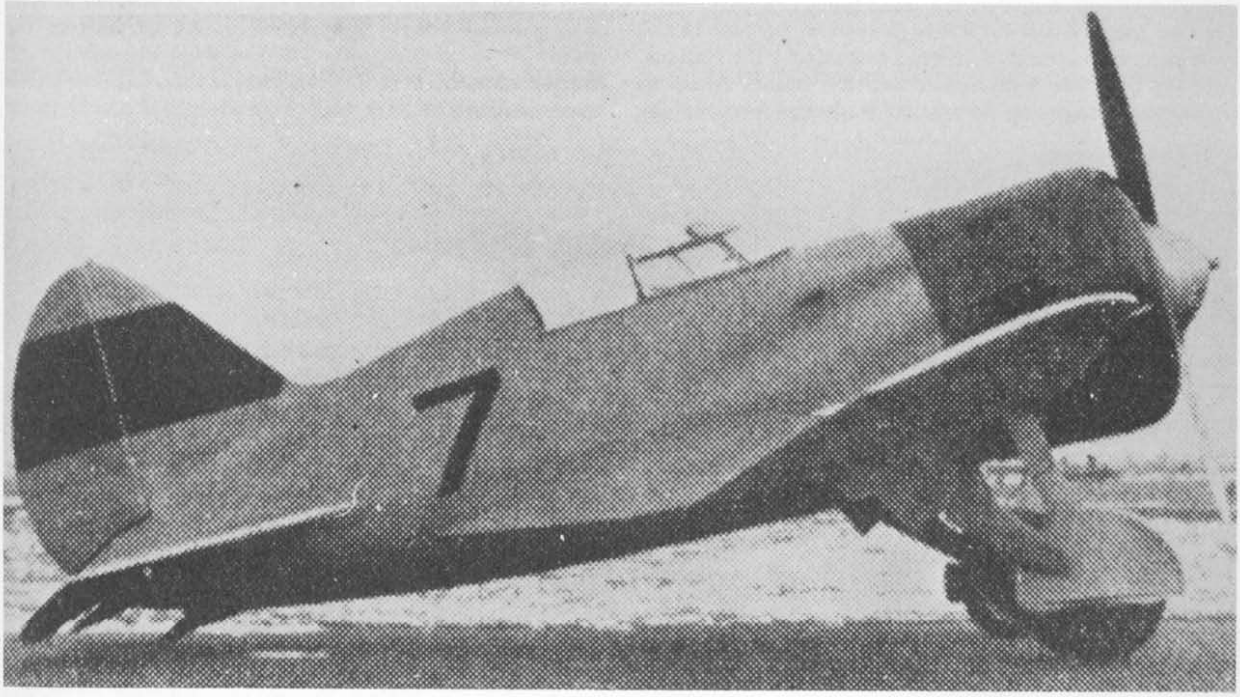
Until the appearance of the Russian fighters, the Fiat CR.32 had been queen of the Spanish skies, superior to all except the few Dewoitine D.501s and Furies, and equal to them. The He51 could also hold its own against Republican opposition. The Polikarpov I-15 slightly outclassed the Fiat in manoeuvrability, climb and ceiling, but was slightly slower, and not so good in a dive. Initially mounting two 7.7mm Breda-SAFAT machine guns, the Fiats began at an early stage to appear with the larger, slower-firing, longer-range 12.7mm gun from the

13. In November 1936 the appearance of modern Russian aircraft over Madrid swiftly restored the balance in the air which the Republicans had lost to the Nationalists following the arrival of the CR 32s and He 51s. The first Russian fighter to enter action was the Polikarpov I-15 (named *'Chato'* by the Republicans, but wrongly identified by the Nationalists as an American Curtiss type). These aircraft proved to be a match for the CR.32, and superior to the He 51. (Marian Krzyzan via W. B. Klepacki)

same manufacturer. Spaniards often chose to fly with one of each calibre (though interestingly, Morato preferred the lighter weapons). The I-15 mounted four fast-firing 7.62mm PV-1s, but in combat between the two types much depended on luck and skill. The arrival of the I-15 forced the Fiats to adopt larger, tighter formations for mutual support.

Although of more modern concept altogether, the I-16 monoplane could take less combat damage than the simpler, more rugged biplanes; it mounted two 7.62mm ShKAS guns – currently the best in the world – but was a less steady gun-platform than the Fiat. Russian pilots soon learned to use their speed by flying in tight four-aircraft elements at higher altitude than that normally occupied by the Nationalists; thus they could dive, intercept and climb away at will. The CR.32 could outmanoeuvre the I-16, however; and a favourite tactic was to meet the I-16 head-on, opening fire with the long-range, explosive rounds from the 12.7mm gun before the Russian could close to the effective range of his lighter armament.

Both the I-15 and I-16 generally outclassed the He51. Henrici, Trautloft and von Houwald each had four victories, and Knüppel five, but the arrival of the Russians closed that satisfactory chapter. The He45 was adequate, the He46 disappointing, and the Ju52/3m was clearly outdated



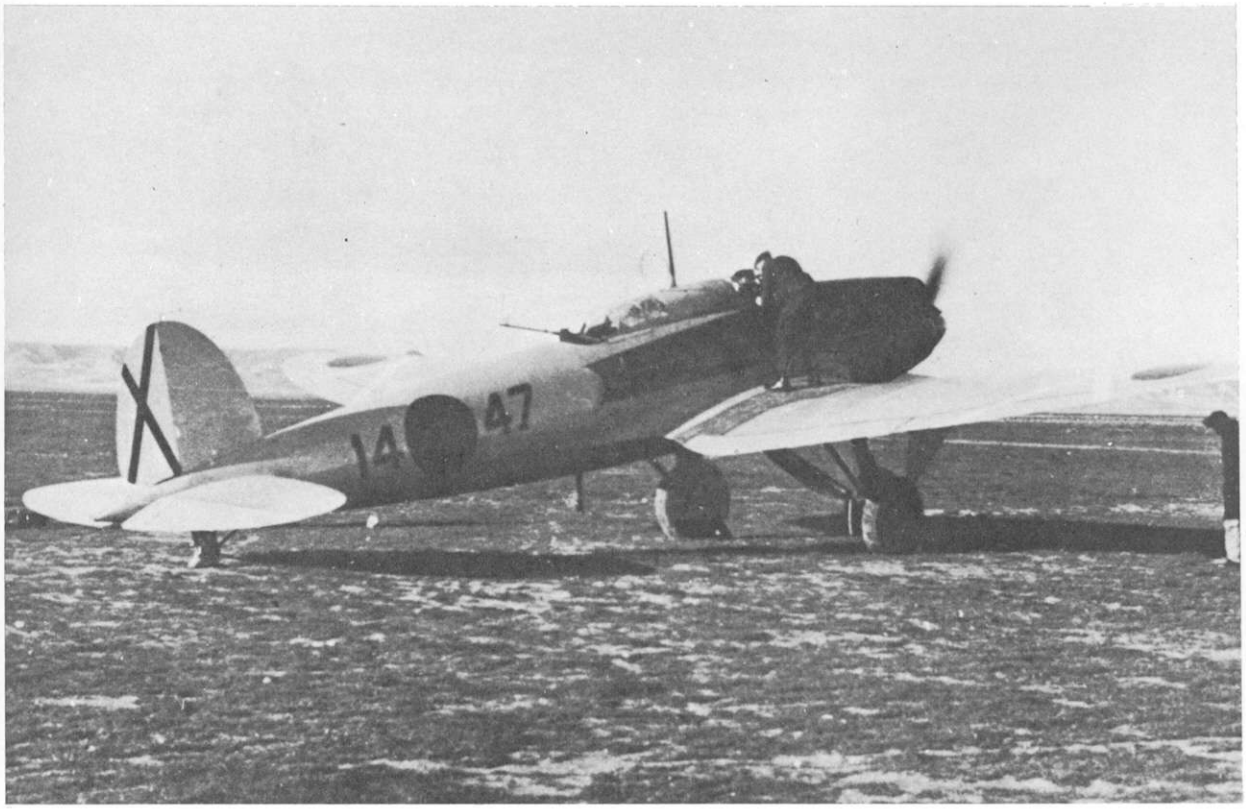
14. Immediately after the appearance of the I-15s over Madrid, the Polikarpov I-16 Type 5 monoplane was also encountered there. This high-flying fighter gave the Republicans a distinct advantage until the arrival of Messerschmitt Bf 109Bs for the *Legion Condor*. This uncamouflaged machine was one of the first to arrive.

as a bomber. Even the eighteen sleek He70s of *A/88* were of limited use, being dogged by maintenance problems. Surprisingly, the He59 float-biplane had proved very effective in gliding night attacks on Republican ports, while its hand-held MG FF 20mm nose cannon was deadly against shipping. Back in Germany the Luftwaffe was about to receive a new generation of aircraft, and the need to re-equip the *Legion Condor* obviously coincided with a desire to test these operationally. Some early experience had demonstrated the effectiveness of the He51 in ground-attack operations, and at the request of von Richthofen five of the new Henschel Hs123A dive-bombers were sent to Seville in December 1936. A rugged, single-seat biplane, the Hs123 was just entering service with the Luftwaffe's new *Stukagruppen*, but in Spain it was used by a special flight of *K/88* in the ground-strafing rôle rather than as a formal dive-bomber. Its success impressed Germans and Spaniards alike, but requests for more had to be denied until the new Luftwaffe units had been equipped.

Two new fighter types were just appearing at this time, and one, the He112V-4 – pre-production prototype for the He112A – was sent to Spain late in December, followed in January 1937 by three pre-production Messerschmitt Bf109Bs (the Bf109V-4, V-5, and V-6). After operational tests the first of 45 Bf109Bs were sent to Seville in March 1937. They flew with *2 Staffel J/88*, led by Oblt. Günther Lützow, who made the first claim – an I-15 over the northern front – on 14 April. Oblt. Radusch, in the sole He112, flew with the *Staffel* and made a claim for an I-15 on the 28th.

Better bombers appeared in February 1937 when 30 Heinkel He111B twin-engined monoplanes re-equipped two *Staffeln* of *K/88*. Raids were made on Alcala and Barajos airfields on 9 March, marking a smooth transition from Junkers to Heinkel equipment. Simultaneously fifteen Dornier Do17F recce-bombers arrived for one *Staffel* of *A/88*. (General Queipo de Llano, commanding the Nationalist Southern Army, requested six CR.32s to cover his dozen old Breguets during his push towards Malaga at this time; instead, the twelve He70s withdrawn from *A/88* were sent to replace the Breguets. Nationalist victory in the Malaga offensive freed them for another front, and, as *Grupo 7-G-14*, the He70s were sent to Vittoria to operate over the Basque area.) The final German types to arrive that

15. The Meridionali Ro 43bis proved to be one of the most successful aircraft delivered to Spain by the Italians. Used by both the Nationalists and the Italian *Aviacione Legionaria* throughout the war, it was employed mainly as a ground attack light bomber. An aircraft of the Italian *1ª Squadriglia* (later *120ª*) of what became the *22° Gruppo Autonomo O.A. 'Linci'* (Lynx) is seen here on patrol over the front. (A.M.I. via Nicola Malizia)



16. Heinkel He 70F of one of the reconnaissance *Staffeln* of *A/88, Legion Condor*, during the 1936/37 period. The aircraft retains the natural metal finish with black nose and fuselage flash in which it arrived from Germany. These aircraft were later handed to the Spaniards, by which time they had been camouflaged. (Franz Selinger)

winter were 20 Do17E bombers, which supplemented the He111Bs in *1.* and *2. K/88*; rather later, ten Do17Ps joined the Do17Fs in *A/88*.

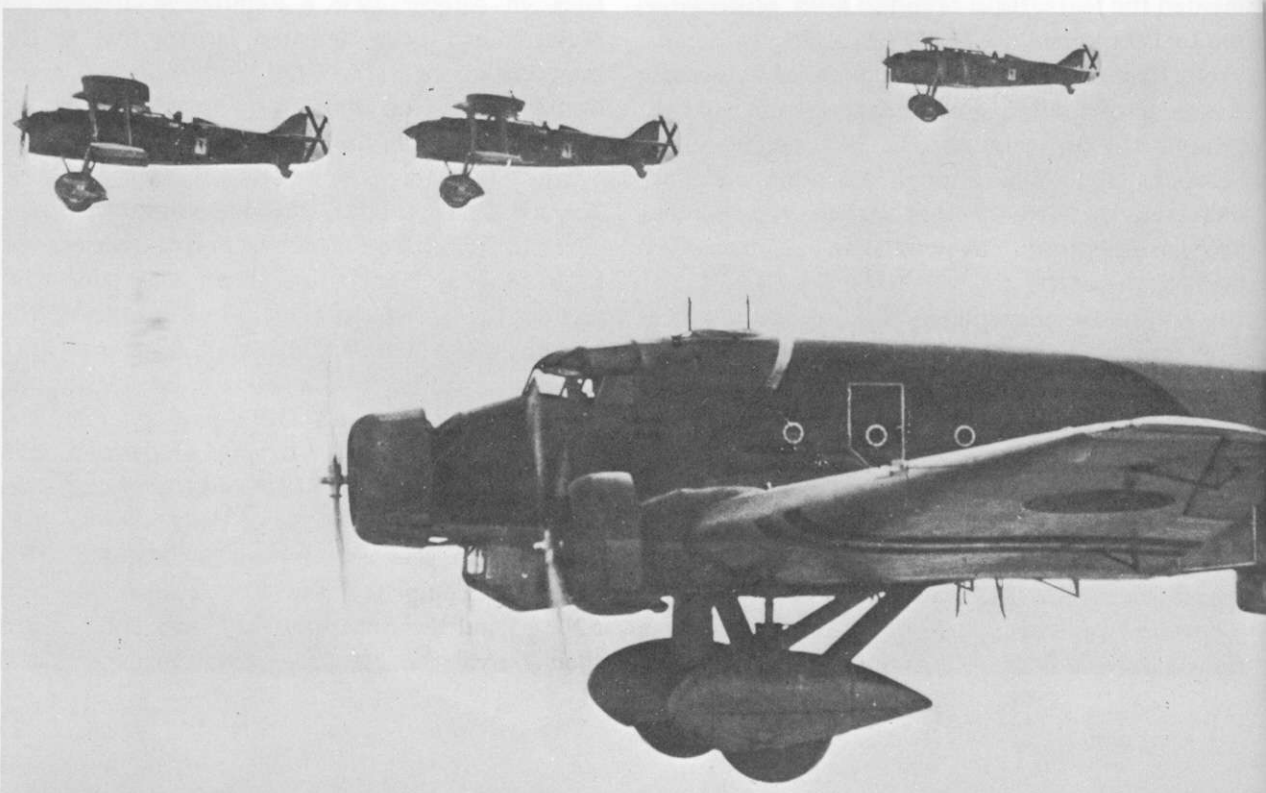
Not to be outdone, Mussolini planned to increase Italian participation greatly; apart from aircraft, ground troops were also to be sent to Spain. February 1937 saw enough Ro.37bis machines delivered to form another Italian and another Spanish *escuadrilla*. The two Italian squadrons then formed a new *22º Gruppo Autonomo O.A. 'Linci'*, the sub-units subsequently taking the numbers *120ª* and *128ª*. The Spanish *grupo* was numbered *1-G-12*. A more formidable newcomer was the force of fast SM.79 trimotor bombers which arrived at the same time – the Savoias were capable of long-range strategic missions without escort, and so impressed the Spaniards that they sought to buy quantities of SM.79s themselves, at 2,000,000 pesetas each. The SM.79 units were the *29º Gruppo 'Sparvieri'* and the *12º Gruppo 'Sorci Verdi'*, from the *12º Stormo B.T.*

A focus of Italian air activity was the Balearic Isles. In August 1936 a Republican attempt on Majorca had been defeated largely due to the intervention of a few Italian aircraft. Since the islands were well situated to provide bases for bomber attacks on the eastern areas of Republican Spain, Italian forces were steadily built up there. The Republicans were forced to station *patrullas* along the coast for defence from this quarter, and their original French equipment was later augmented by an I-16 *escuadrilla*. Italian units on the islands were the *25º Gruppo Bombardamento Notturno 'Pipistrelli della Baleari'*, comprising the SM.81s of the *251ª* and *252ª Squadriglie*; and the Fiat CR.32-equipped *10º Gruppo Autonomo Caccia 'Baleari'*, comprising the *101ª* and *102ª Squadriglie*. In spring 1937 the SM.79s of the *8º Stormo B.V. 'Falchi della Baleari'* arrived on Majorca. This formation comprised the *27º Gruppo* (*18ª* and *52ª Sq.*) and the *28º Gruppo* (*10ª* and *19ª Sq.*). On their arrival the *25º Gruppo* was disbanded and

17. A number of American volunteer pilots remained with the Republic well into 1937, flying the new Russian fighters. In the foreground are, left to right, Harold 'Whitey' Dahl, 'Chang' Selles (with sub-machine gun) and Frank G. Tinker. Behind them are three Spanish mechanics and an I-15. Dahl later became a prisoner, was condemned to death, but reprieved after a personal appeal to Franco by his wife. Selles was later shot as a spy. Tinker returned to the United States after claiming eight victories – the best score of any American in Spain.

then reformed on the mainland, where its new *215ª* and *216ª Squadriglie* joined the *24º Gruppo* to form a new *21º Stormo B.P.*

A secondary effect of the new reinforcements was the strengthening of the Nationalists' own air force – the *Agrupacion Española* – as most of the

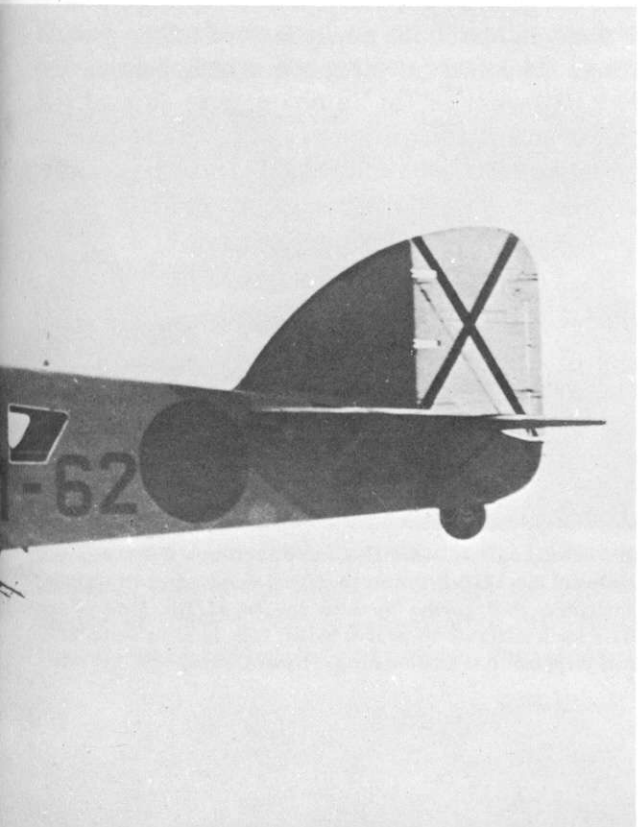


superseded He51s and Ju52/3ms were passed to them. Meanwhile, air activity was intense, for the German and Italian build-up had been matched by increased Russian deliveries to the Republic.

By mid-March at least 147 I-15s – 'Chatos' – had arrived, while 62 more I-16s – 'Moscas' – had been delivered in December and January. A total of 31 SB-2s now equipped *Grupo num 12*, and *Grupo num 22* replaced its Breguets with Po.540s and MB.210s as a mixed night-bomber unit. Some of the more experienced Spanish pilots began flying Russian types late in 1936, and in February 1937 the first Spanish I-15 *escuadrilla* was formed under Ten. Andres Garcia LaCalle. LaCalle is reported to have had eleven kills to his name at this point. His pilots included both Spaniards and the pick of foreign volunteers, who had shown their worth flying older types. This, with five other *escuadrillas* led and mainly manned by Russians but with some Spanish and foreign pilots, now came together as *Grupo num 26*. During heavy fighting over Madrid early in the year losses were appreciable. The Russian colonel commanding fighters on this front was killed on 3 January, and on 1 Febuary an I-16 *escuadrilla* commander, Anton Kovaleskii ('Casimiro') also met his death.

Although their aid to the Republic had been paid for in gold, the Russians sought to exercise considerable control. Military and political advisers were infiltrated into units at all levels. The threat of withholding fighter cover was used as a weapon in arguments about the running of the ground war; and SB-2s were often used to bomb targets of Russian, rather than Republican choosing.

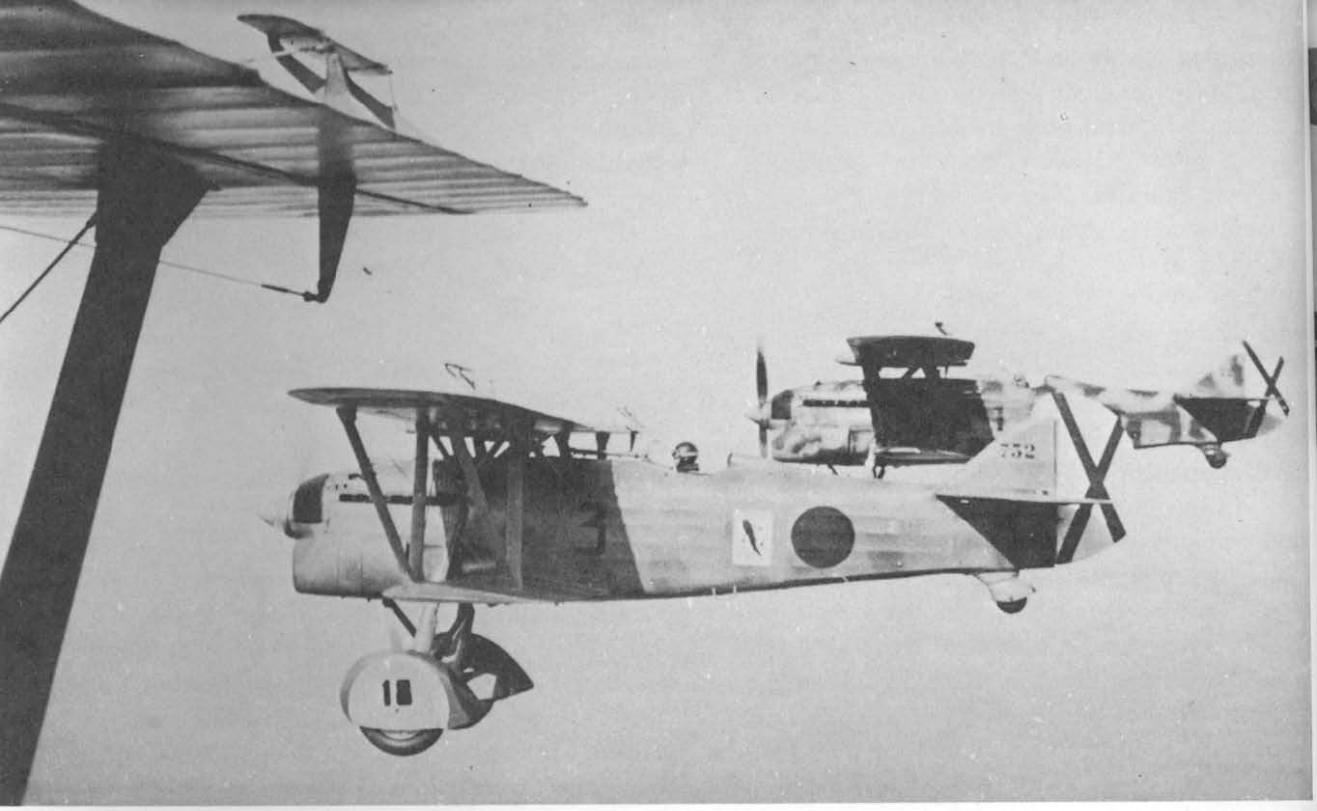
18. A much-strengthened Italian *Aviacione Legionaria* played an even more important part in the war from early 1937 onwards. A Savoia SM 81 of *21° Stormo B.P.* is escorted by CR 32s of the *23° Gruppo C.T. 'Asso di Bastoni'*, one of the new fighter units to arrive at the time. (Nicola Malizia)



THE JARAMA, FEBRUARY 1937

Despite this unwelcome Russian attitude, Republican morale was high. Throughout the winter they had held the Nationalists in the southern and western outskirts of Madrid. The first International Brigade had entered the line, and Russian BT tanks and other material were becoming available. Franco, now overall commander of the Nationalist armies, realised that any frontal attack was unlikely to succeed in the foreseeable future. In an attempt to outflank the main defences he launched an offensive to the south on 6 February, aiming to cut the Madrid–Valencia road east of the city. It was during this campaign, the battle of the Jarama River, that the Republican air elements gained their first clear measure of superiority. Despite bad weather the I-15s – now fitted with 25 lb bombs beneath the wings – and R-5s bombed and strafed the enemy at every opportunity. As the weather improved the Nationalists put up day fighter patrols, and one of these provided LaCalle's *escuadrilla* with its first victory on 13 February.

The first big clash occurred on the 16th. Twelve Nationalist Ju52/3ms escorted by Italian Fiats were sent to the Argada sector. Eleven 'Chatos' attacked one formation of six Junkers, shooting down Capt. Calderon's bomber in flames. The Fiats, following their new cautious policy, had turned back at the front line – they numbered less than fifteen. The I-15s were able to harry the remaining Ju52/3ms all the way home, damaging several, while I-16s gave them top-cover and dispatched two He51s for good measure. Deeply concerned, the National-

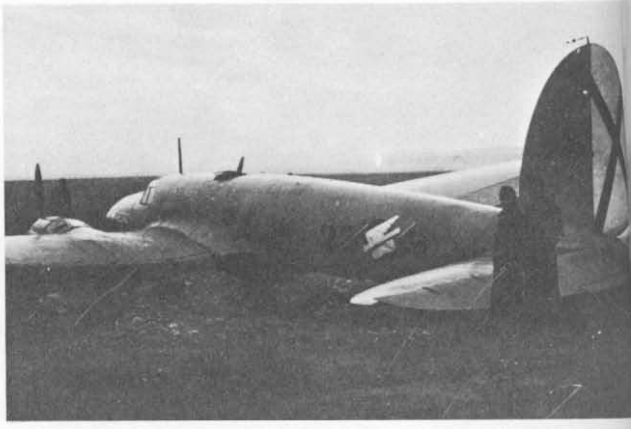


19. Displaying different camouflage patterns on their fuselages, a pair of Fiat CR 32s of the *18ª Squadriglia, 23° Gruppo C.T. 'Asso di Bastoni'* are seen in flight from the cockpit of a third such fighter. (M. Carmello via Nicola Malizia)

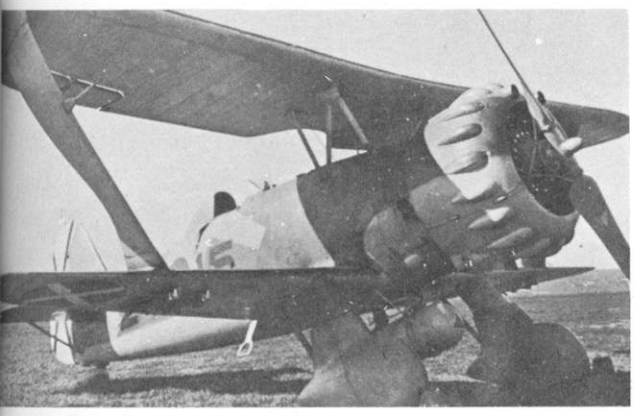
ists ordered Morato's 'Blue Patrol' back from the south to the main front. On the 18th there was more heavy fighting, as Morato entered the fray; two I-15s were shot down by *Legion Condor* He51s, but I-16s appeared and claimed several Heinkels. That afternoon I-15s and I-16s scrambled to intercept Nationalist Ju52/3ms again, three bombers being escorted only by the three CR.32s of the Morato patrol since the Italians once again turned tail at the front line. The bombers, too, turned back as the Red interceptors appeared, and Morato's gallant trio flew into battle alone. The sight was too much for the Italians; they disobeyed orders to turn back over the lines and flew to the aid of their Spanish allies. In the ensuing dogfight Morato claimed one of ten Fiat victories, for the loss of three CR.32s.

Two days later a Republican counter-attack on the Jarama front opened with preliminary strafing by I-15s covered by I-16s. Battle again flared when they met a small force of Junkers with fighter escort; both sides made substantial claims. After another two days, bad weather and the stabilizing of the ground situation led to a drop in air activity. It was noted, however, that during this series of actions the fast He111 and SM.79 bombers were encountered for the first time, and that the I-15s had the greatest difficulty in intercepting them.

Early in March the newly arrived Italian ground forces launched an offensive which became the



20. February 1937 saw the introduction of the modern Heinkel He 111B bomber to *Legion Condor* to supplement and then replace the obsolescent Ju 52/3m. One of the first such aircraft to arrive with *K/88* is seen here after carrying out a crash-landing. (Hans Obert)



21. Only a small test batch of Henschel Hs 123A dive-bombers were employed by the *Legion Condor*, being operated in the *Schlacht* (ground attack) role, rather than for their designed duty. They impressed the Spaniards, who requested more, receiving a larger batch during the later stages of the war. (Franz Selinger)

battle of Guadalajara; it attracted the greater part of the *Aviazione Legionaria* in support. Bad weather and poorly placed airfields reduced their effectiveness, and the Russian aircraft flying from Alcacla de Henares and Barajos had an easy task. Constant ground-attack sorties demoralised the inexperienced Italian troops, who were driven back and pursued with great effect by Republican air and ground forces. The town of Brihuega, and much valuable material, fell into Republican hands.

Vizcaya

Franco now determined to stabilise the Madrid front and to move the greater part of his forces northwards to gain control of the industrial and mining areas of Vizcaya and Asturias. The *Legion Condor* and most of the Italian and Spanish air forces would accompany them. The offensive opened on 31 March 1937, initially aimed at the Bilbao region. A limited attack at Teruel towards Barcelona was designed to prevent any major Republican reinforcement of the Basques, and was indeed successful in drawing Republican air units into this region in April. Apart from the severe practical difficulties of sending aid to the Basque area, there was a residual hostility among the Republican leaders due to the Basque separatist ambitions. Main Republican air strength in the north comprised a few I-15s, and about 27 Koolhoven FK-51s – though the performance of these biplanes, which were little more than trainers, left much to be desired. During April about 52 Avia A-101 biplane recce-bombers – rejects from the Czech air force – had been released to the Republic. On 15 April one of the freighters carrying them from Gdynia to Santander was intercepted by the Nationalist cruiser *Almirante Cervera* and in due course her 22 Avias were put into Nationalist service instead. The remaining 30 reached Santander and joined a composite *grupo* with the other available types.

Meanwhile, important developments were afoot in the Nationalist camp. It will be recalled that in December 1936 Morato's patrol had been sent south to support the Malaga offensive. On 3 January he succeeded in shooting down two of the SB-2s which were currently bombing Nationalist shipping and the city of Cordoba. Despite temporary reinforcement by Italian CR.32s the interception of the 'Katiuskas' was always chancy, and when both Italian and Nationalist Fiats were drawn north by the Jarama fighting the Nationalist Southern Army was left with two Breguet *grupos* only.

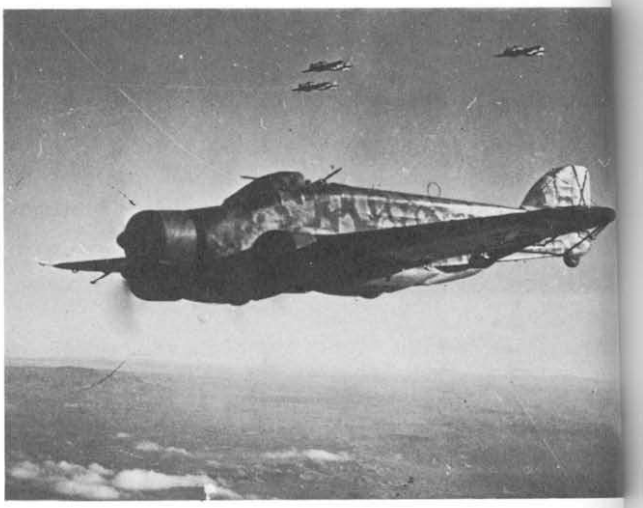
Early in the year Capt. Angel Salas briefly commanded an *escuadrilla* of unsatisfactory Polish PWS-10s. In March he was given command of one of three new *escuadrillas* of He51s, made available by the arrival of Messerschmitts for *J/88*. *1-E-2*, *2-E-2* and *3-E-2* each had seven Heinkels, and the new units went into action at once. In April they fought over the Teruel front against I-15s and I-16s drawn there from the Jarama. Also active from the beginning of April was a full *escuadrilla* of Nationalist CR.32s, *1-E-3*. At the end of the month Salas's *2-E-2* converted onto CR.32s as *2-E-3*. The He51s were divided among the other two *escuadrillas*, and subsequently a full *grupo* of each type was formed – *1-G-2* (comprising *1-E-2* and *2-E-2*) with He51s, and *2-G-3* (comprising *1-E-3* and *2-E-3*) with the Fiats.

This expansion was made possible by the increased numbers of Fiats available, due to the arrival of heavy Italian reinforcements. In April *6º Gruppo 'Gamba di Ferro'* (*31ª*, *32ª* and *33ª Sq.*) arrived; this unit took its name from the false leg which failed to deter Capt. Ernesto Botto from returning to combat flying in Spain. Simultaneously *23º Gruppo 'Asso di Bastoni'* (*18ª*, *19ª* and *20ª Sq.*) came on the scene. A brand new ground-attack monoplane, the Breda 65, appeared in Spanish skies

with the *65ª Sq. Autonomo d'Assalto*.

Nationalist bomber forces were re-organised that spring and summer. The 1st Junkers *grupo* disbanded and its personnel began converting onto the first SM.79s handed to the Nationalists; when they entered the line they were designated *3-G-28*. The 2nd and 3rd Junkers *grupos* took the numbers *1-G-22* and *2-G-22*, one of them concentrating on night operations. The first Breguet *grupos* were completely re-organised. *1-G-10* became *6-G-15* with ex-German He45s; *2-G-10* became *5-G-17*, with captured Avia A-101s; and *3-*, *4-*, and *5-G-10* shared the remaining Br.XIXs as *1-G-10* and 2-*G-10*. Simultaneously *1-* and *2-G-11* were combined into a single unit, *3-G-11*, with the remaining He46s; and to complete the numerical sequence of light bomber units *1-G-12*, with the Ro.37bis, became *4-G-12*.

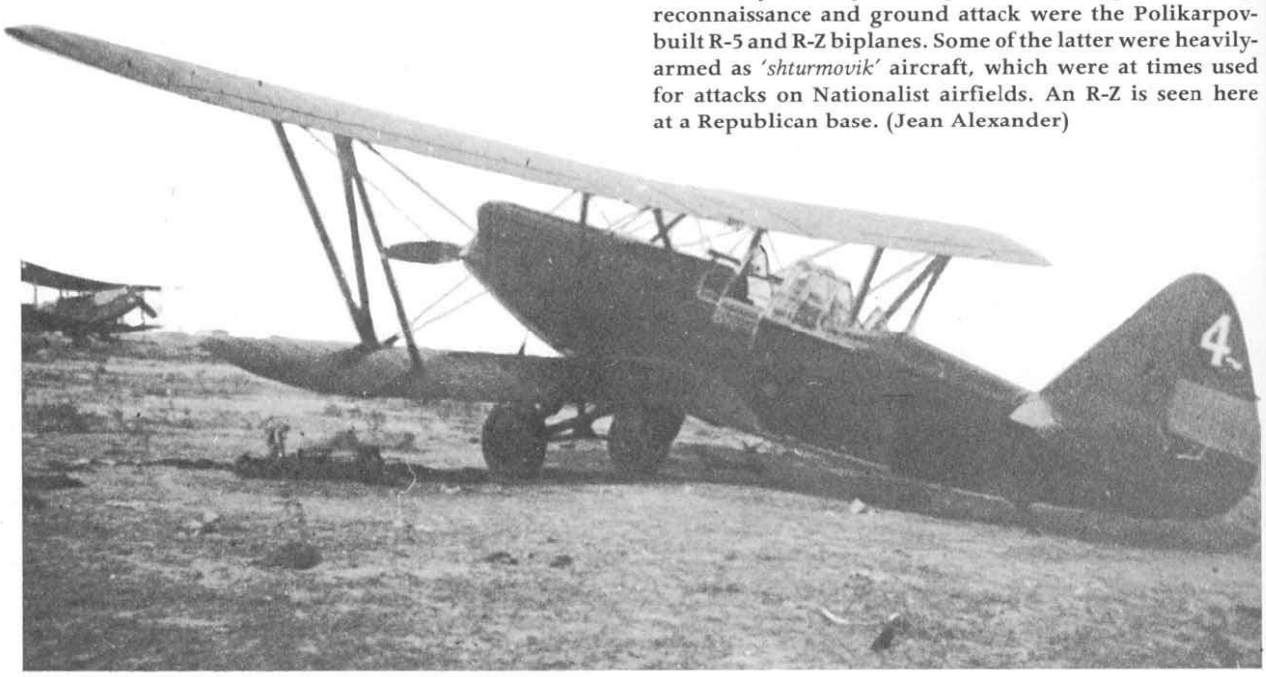
The Vizcaya offensive which had begun at the end of March saw the debut of the re-equipped *Legion Condor*, spearheaded by the Messerschmitts of *2.J/88* and the Heinkels and Dorniers of *K/88*. The He51s of the other fighter *Staffeln* now concentrated more on ground-attack. As the ground forces advanced towards Bilbao in April, a number of fortified towns stood between them and the main defences – the 'Iron Ring'. One was Guernica, a communications centre and provincial market town with an important river bridge.



22. At about the same time as the He 111B reached Spain, so too did the fast trimotor Savoia SM 79 from Italy, these aircraft joining the *Aviacione Legionaria* on the mainland and on the island of Majorca. Several such bombers from the Spain-based *111° Stormo B.V.* are seen in flight. These aircraft were also purchased in large numbers by the Nationalists for their own bomber *Grupos*. (Nicola Malizia)

On 26 April 1937 a wave of Heinkels, followed by a wave of Ju52/3ms, bombed the crowded town and practically destroyed its centre. The Republican propaganda machine naturally presented the

23. Widely used by the Republicans for light bombing, reconnaissance and ground attack were the Polikarpov-built R-5 and R-Z biplanes. Some of the latter were heavily-armed as *'shturmovik'* aircraft, which were at times used for attacks on Nationalist airfields. An R-Z is seen here at a Republican base. (Jean Alexander)

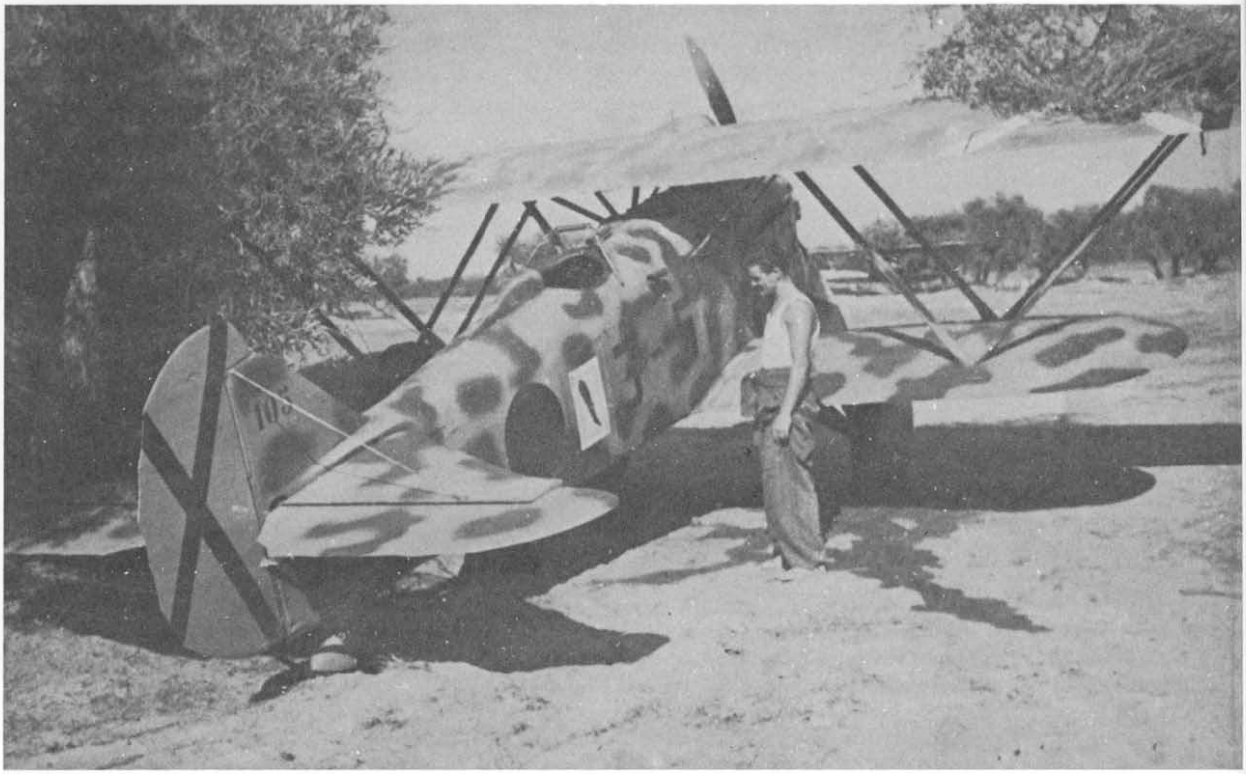


24. Destroyed on the ground by Republican air attack were these four CR 32s of the *20ª Squadriglia, 23° Gruppo C.T. 'Asso di Bastoni'*. These were some of the victims of the big Republican air attack on Gerapinilias airfield, Saragosa, on 15 October, 1937. (M. Carmello via Nicola Malizia)

raid to the horrified world as a totally unnecessary exercise in terror-bombing of a civilian target, bringing great odium on Franco and his German allies. Despite repeated investigations, the truth will probably never be known. Did Mola, the Spanish army commander in the north, request *K/88* to make the raid, or was it a purely German experiment? Was it terror-bombing, or was Guernica a valid military target? Was the raid intended to strike only the bridge – surely a justifiable target – and were the civilian losses due to poor bomb-aiming? Whatever the motive, Mola's troops certainly occupied Guernica almost without a fight immediately afterwards.

If it was a case of Germans acting without Spanish endorsement, then the Nationalists certainly had no monopoly of poorly-controlled allies, for the following month came another incident which caused international concern. Following League of Nations decisions, a number of navies had undertaken 'quarantine' patrols off the coast to turn back ships carrying military equipment to either side. With fine hypocrisy the Germans and Italians participated, and a number of their warships lay off the Balearics. When the arrival of 31 more SB-2s on 1 May 1937 allowed the formation of *Grupo num 24*, the unit's first task was to bomb shipping in these waters. On 24 May, apparently without the agreement of Republican High Command, the SB-2s bombed British, German and Italian ships in Palma harbour, Majorca, later proclaiming that as this was Nationalist territory they had been mistaken for Nationalist warships. Repeat attacks on the 26th and 29th caused damage and deaths, and in retaliation five German warships shelled Almeira on the 31st, causing 19 deaths.

The Nationalist advance in Vizcaya was sweeping all before it, and the Republic badly needed to ease the pressure. The few Russian fighters in the region had soon been neutralised, and on 22 May ten I-15s were sent on the long flight to Bilbao to replace them – seven arrived safely. Within ten days the Messerschmitts of *J/88* had disposed of most of them. On 31 May an attack by the International Brigades from Guadalajara, through the Guadarama mountains towards Segovia breached the Nationalist line; this promising success instantly distracted attention from the Basque front, and – with the mobility which was becoming marked among the important elements of both air forces – major units of the Nationalist air forces were transferred to the area to help seal the breach. The fighters and ground-attack machines swept the air of Republican fighters and hurled themselves on the advancing



25. A Fiat CR 32 of *23 Gruppo C.T. 'Asso di Bastoni'*, with its pilot, *Sergente* Giovanni Carmello. (M. Carmello via Nicola Malizia)

columns, swinging the battle in favour of Franco's hard-pressed troops. These battles saw the first clash between Bf109Bs and SB-2s, two of the bombers being claimed by *2.J/88* on 8 June. By this date the Republic's offensive was spent, and the International Brigades were falling back through the mountains to their start line. Bilbao was doomed; it fell on 19 June, a victory that Franco owed not least to the Italian troops, who fought much better than they had at Guadalajara.

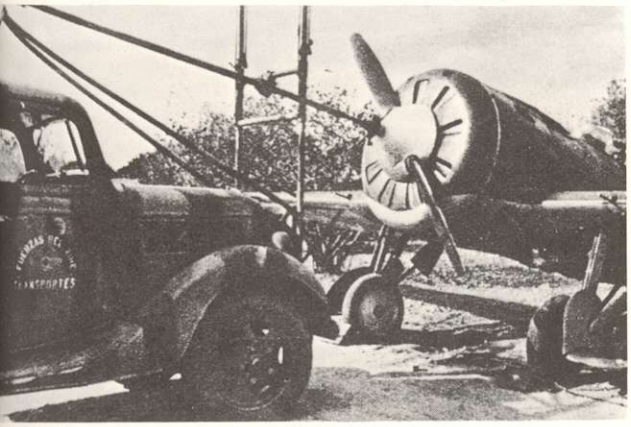
The next Nationalist objective was Santander; its capture, and the clearing of the north, would release important forces for the central front. To draw Franco's troops off from Santander the Republic prepared a major offensive at Brunete, where the line curved westwards to the north of Madrid and south of the Guadaramas. Some 200 aircraft were gathered at Madrid, Barajos, Alcala, Guadalajara, and other bases. The Republican air force was now at its peak strength. Fifty Spanish and foreign pilots had been trained on the I-16 and were on the point of being fed into the *escuadrillas* of *Grupo num 21*. The first batch of 200 Republican pilots sent to the USSR for training in December 1936 were now returning and dispersing among front-line units. This was essential, as only some 50 Russian pilots were available at any one time. The leading Republican ace, LaCalle, had gone to instruct in Russia after the Jarama battles, and at the end of May 1937 some of the better I-15 pilots were moved into *Grupo num 21* to fly I-16s. These later included the Americans Frank Tinker and Albert Baumler, who joined Capt. I. A. Lakeiev's *1ª Escuadrilla de Moscas*. Some Russians now converted onto I-15s and flew with the seven *escuadrillas* of *Grupo num 26* (of which four were Spanish-led). The two fighter *grupos* were now tactically joined into the 11th Fighter *Escuadra*. Also available were the SB-2s of *Grupos num 12* and *24*; the R-5s of *Grupos num 20, 25,* and *30*; a Russian-manned R-Z *grupo*; and the night-bombers of the mixed *Grupo num 22*.

Further aid had finally been sent to the north; on 17 June eight I-16s flew to Santander, claiming

three SM.81s and two CR.32s in their first combat. A full two *escuadrillas* of 'Moscas' and some additional 'Chatos' eventually operated in this area, their loss from the central front being made up by the arrival during July from Russia of 49 more I-16s. A fifth I-16 *escuadrilla* was formed on the main front, and subsequently a sixth (all Russian) *escuadrilla*.

BRUNETE, JULY 1937

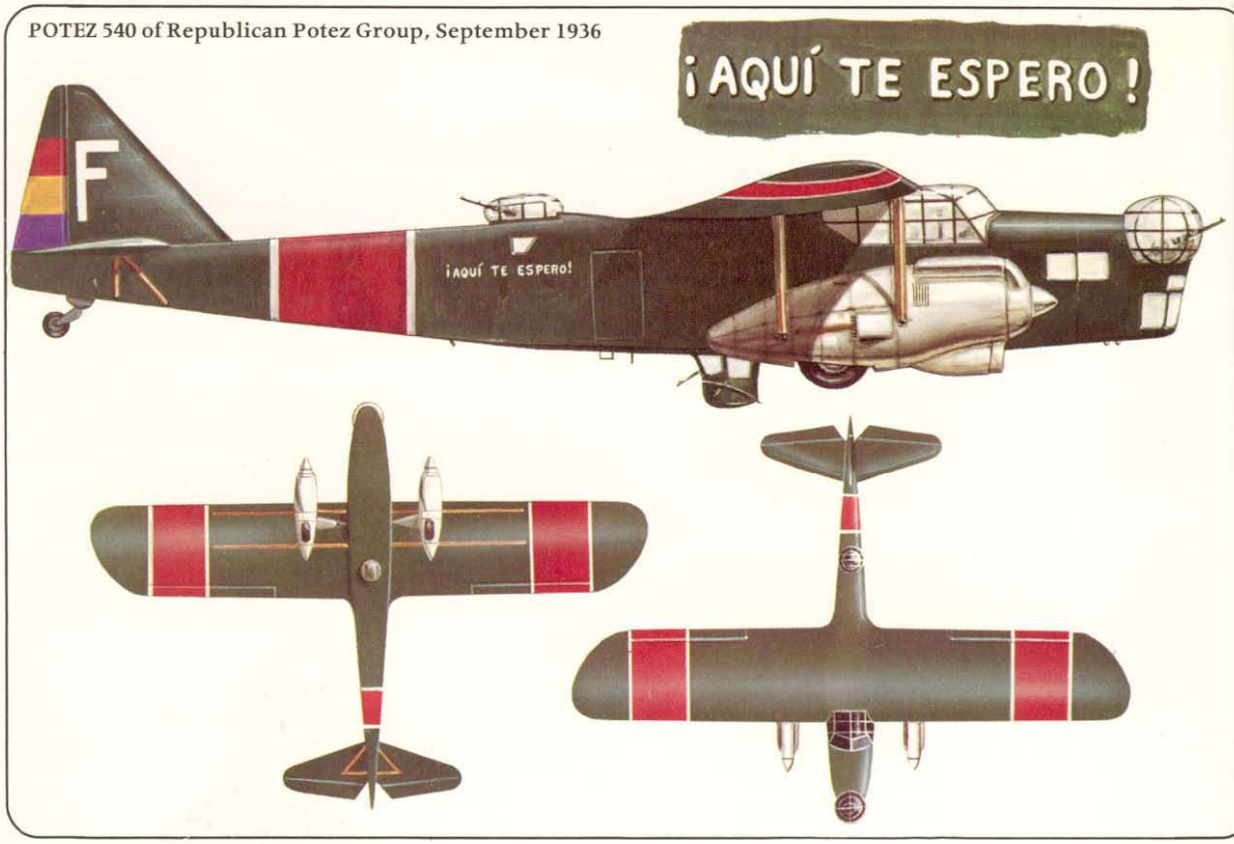
The initial Republican attack of 6 July drove a dangerous salient into Franco's lines, and the air forces were at once recalled from the north, some 150 machines concentrating for operations over the new front. The Nationalist He70 and the Italian SM.79 and SM.81 *gruppi* (weakened by the return home of the *12º Gruppo*) went to Burgos. The German Bf109s and Do17s went to Avila, together with Morato's Fiats. The *Legion Condor* He111s and Ju52/3ms went to Salamanca, and the Nationalist Ro.37bis and He51s to Grinon. (The 'Romeos' and He51s, now permanently on ground-attack duties, were known as *'Cadenas'* – 'Chains' – from their tactic of attacking in a single nose-to-tail chain of aircraft; their characteristic insignia may be seen in the painting of the He51 of *1-G-2* on p. 26.) The Nationalist Junkers and He45s were at Casavieja, and the Italian fighters of the *'Asso di Bastoni'* group were sent to Torrijos. Only older types such as the Avias stayed in the north, and

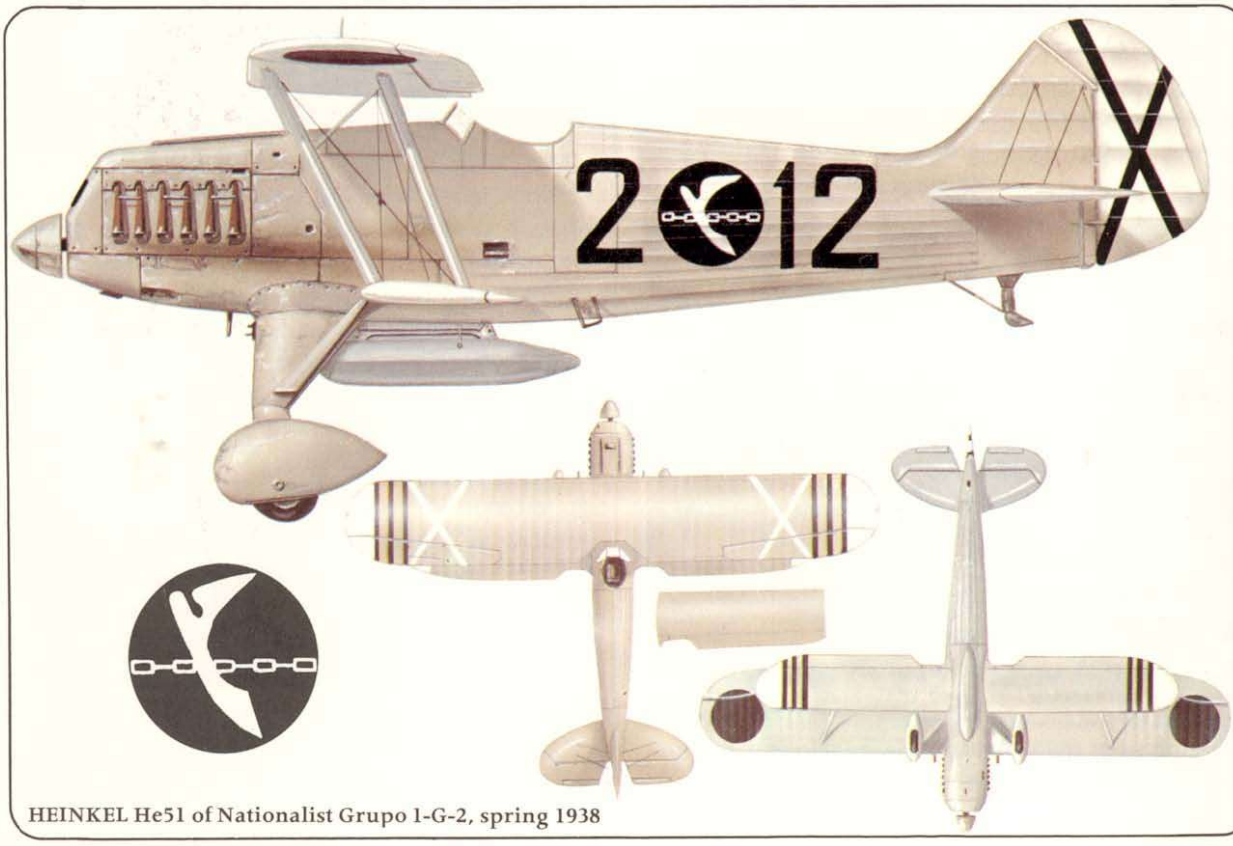


26. During 1938 examples began arriving of the more powerful Polikarpov I-16 Type 10 fighter, which featured an increased armament of four machine guns. One of these aircraft is seen connected to a Hucks starter truck. (via W. B. Klepacki)

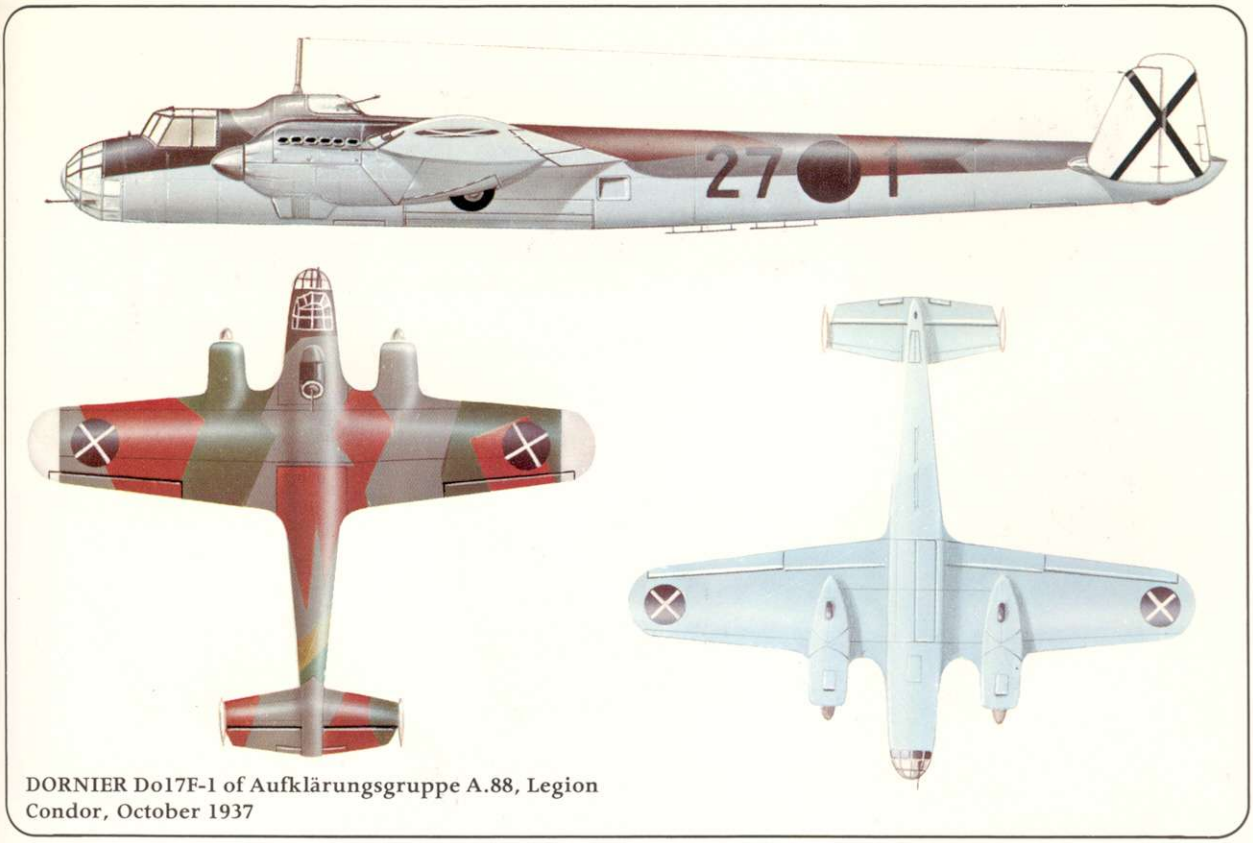
BELOW: **Teniente, Nationalist Air Force, 1938, in flying dress with service dress sidecap in the Air Force uniform colours of blue, piped with grass green. The two gold six-pointed stars on breast patch and cap indicate the rank. Pile-collared wind-cheater and trousers in khaki fabric are issue flying clothing; note boots have oblique zip from top to outside of instep, and wind-cheater has knitted waist and cuffs. The red chest patch bears the Nationalist pilot's wings above the ranking: these are silver with a red central disc charged with a silver four-blade propeller.**

POTEZ 540 of Republican Potez Group, September 1936





HEINKEL He51 of Nationalist Grupo 1-G-2, spring 1938



DORNIER Do17F-1 of Aufklärungsgruppe A.88, Legion Condor, October 1937

OPPOSITE, TOP: Potez 540 of Government Potez Group, September 1936, in original French *vert emaillité* finish with natural metal cowlings. This well-known machine, flown by Capitan Mellado and Teniente Moreno, bombed the warship *Canarias* on 23 September; it was shot down two days later by the Nationalist ace-to-be, Capitan Angel Salas Larrazabal, flying Fiat CR.32 No. 103 – his second victory. The slogan, on the starboard side only, translates loosely as 'I'll be waiting for you here!'

ABOVE: Dornier Do17F-1 of Aufklärungsgruppe A.88, Legion Condor, based at Llanes in October 1937. Tricolour splinter scheme of RLM shades 61, 62, and 63 – brown, green and grey, with added Nationalist markings including white upper wingtips. '27' was the Dornier 17 type number in Spain.

OPPOSITE, BOTTOM: Heinkel He51 of Nationalist Air Force Grupo 1-G-2, Aragon front, spring 1938; at this time the unit was led by Capitan Jose Muñoz Jimenez. The original German grey factory finish is retained, with Nationalist markings. The '2' is the type number of the He51 in Nationalist and interventionist service: the '12' is the individual aircraft number, within its type series rather than within its unit – no particular sequence governed which numbered aircraft served together in any unit. The type was also indicated in the group designation, thus 1-G-2 was the 1st He51 Group. On the black fuselage disc – the Nationalist marking – appears the badge of this ground-attack group.

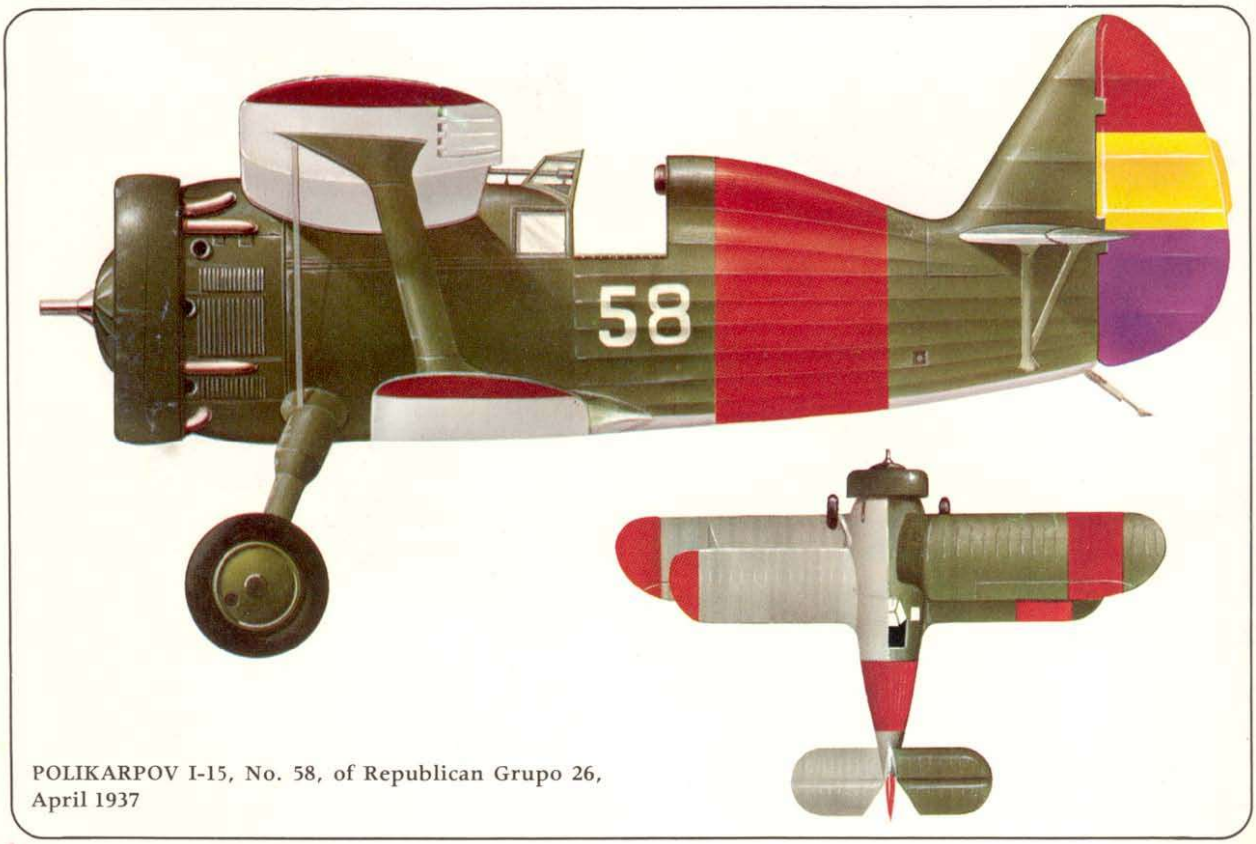
Fiat CR.32, No. 854, of XXIII° Gruppo C.T. 'Asso di Bastoni', August 1938

854
3-4

PAGES 28–29: Fiat CR.32 No. 854, flown by Maggiore Aldo Remondino, commanding 23º Gruppo C.T. 'Asso di Bastoni' at Escatron on the Teruel front in August 1938. Standard Italian 'sand and spinach' camouflage with Nationalist tail and wing markings. The Group's 'Ace of Clubs' badge is carried below the cockpit; the white flash on the fuselage disc, and the oblique white band, are command markings. '3' is the type number carried by the Fiat CR.32, and '4' the individual aircraft number.

OPPOSITE, TOP: Selection of unit insignia: (1) Falangist yoke and arrows motif painted on fuselage disc of many Nationalist aircraft. (2) Badge of Garcia Morato's 'Blue Patrol', carried as unit insignia on fin of Fiat CR.32s of Morato's 2-G-3 from May 1937, and 3-G-3 from spring 1938. (3) 4 Staffel, Jagdgruppe J.88, Legion Condor, carried on fuselage disc of He51. (4) Kampfgruppe K.88, Legion Condor, carried on fuselage disc of Heinkel He111. (5) 56º Squadriglia Assalto, carried on fin of Breda 65. (6) 8º Stormo Bombardamento Veloce, 'Falchi delle Baleari', carried on fuselage disc of SM.79. (7) 3ª Mosca Escadrilla, carried on fin of Polikarpov I-16. (8) 4ª Mosca Escadrilla, carried on fin of Polikarpov I-16.

BELOW: Polikarpov I-15, No. 58, flown by Teniente Frank G. Tinker Jr. of Andres Garcia LaCalle's *Chato Escadrilla*, Grupo 26, Republican Air Force. The American ace gained his third victory (an He51 of 2-E-2, over Teruel on 17 April 1937) while flying this machine. Soviet forest green and pale blue-grey finish with red Republican bands on wings and fuselage, and Republican tricolour rudder stripes; the white '58' is the individual aircraft number. Note that the small plan view is a split upper/lower surface presentation.



POLIKARPOV I-15, No. 58, of Republican Grupo 26, April 1937

1

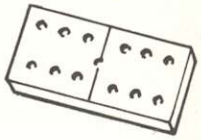
2

3

4

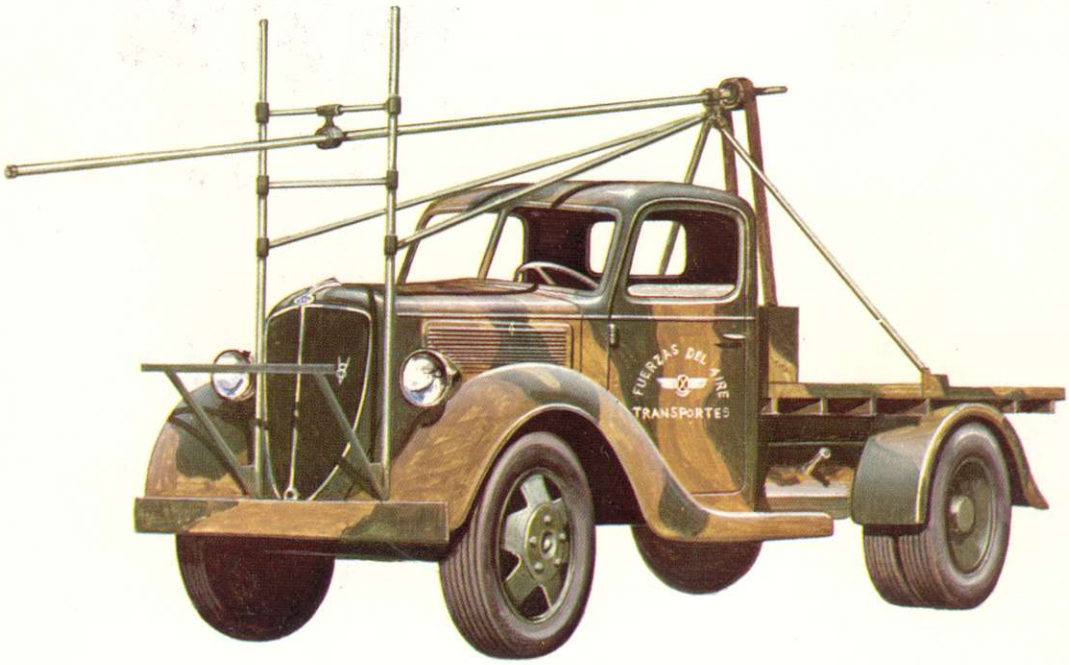
5

6



7

8



1937 Ford V8 Model 79 truck with Hucks starter gear, Republican Air Force

ABOVE: Alferez, Republican Air Force, in issue leather flying clothing, carrying holstered Astra service automatic. Note zip fastener up whole outside seam of trousers. Blue chest patch carries ranking – the gold kinked stripe, which underlines the fact that Republican Air Force uniform was very naval in character – beneath pilot's wings. These are gold with a central red disc, charged with a pale blue eagle with a gold four-blade propeller superimposed. 'Alferez' is the junior commissioned rank, approximating 'ensign'.

BELOW: Oberleutnant pilot, Legion Condor, 1939, in that organisation's khaki service dress. The silver-piped turn-up of the sidecap indicates officer rank; the three six-pointed silver stars identify this rank, and their thin yellow edging, the flying branch. (Normally one would expect two stars for this rank, but in the Legion Condor senior warrant officers wore a single star, and *Leutnante*, two.) Nationalist pilot wings are worn on the right breast, and ranking on the left. On the right pocket is the Spanish Cross, a silver decoration instituted in April 1939.

on the Teruel front, supported by the other two Italian Fiat *gruppi*.

At full strength by 9 July, these forces were thrown into action with vigour and did much to slow the Republican thrust. By the 11th both sides were digging in while fierce battles raged overhead. On 8 July the first claim of victory over a Bf109B was made, by a Yugoslav named Petrovik, but was not confirmed by the *Legion Condor*. On the 12th the Germans had their best day yet, six kills being claimed including two each by Lt. Pingel and Uffz. Höness; one victim was Capt. Minaev, leader of an I-16 squadron. Next day the *'Assi di Bastoni'*, led with dash by Maggiore Zotti, claimed eight SB-2s, four I-16s and an I-15; but Höness fell, shot down by Frank Tinker, who would claim a second 'Mayser-Schmidt' (*sic*) on the 17th.

A Nationalist counter-attack on the 16th brought numerous Red aircraft over the front, ten being claimed shot down. Both ground armies suffered heavily. Brunete was retaken by the Nationalists, lost again, and partially retaken in a final push on the 25th. By now Republican casualties numbered some 25,000 and about 50 aircraft, and Nationalist losses had reached around 13,000 and 25 aircraft. Lt. Rolf Pingel had become the first *Legion Condor* Messerschmitt pilot to claim five aerial victories.

Brunete had shown it to be unrealistic to operate Ju52/3ms and SM.81s by day, and the subsequent switch to night bombing by these types brought a swift response in the formation of an I-15 night fighter detachment under Senior Lt. A. K. Serov (alias 'Carlos Castejon'). This experienced pilot shot down a Ju52/3m of the *Legion Condor* in the early hours of 26 July near Escorial – the war's first night victory.

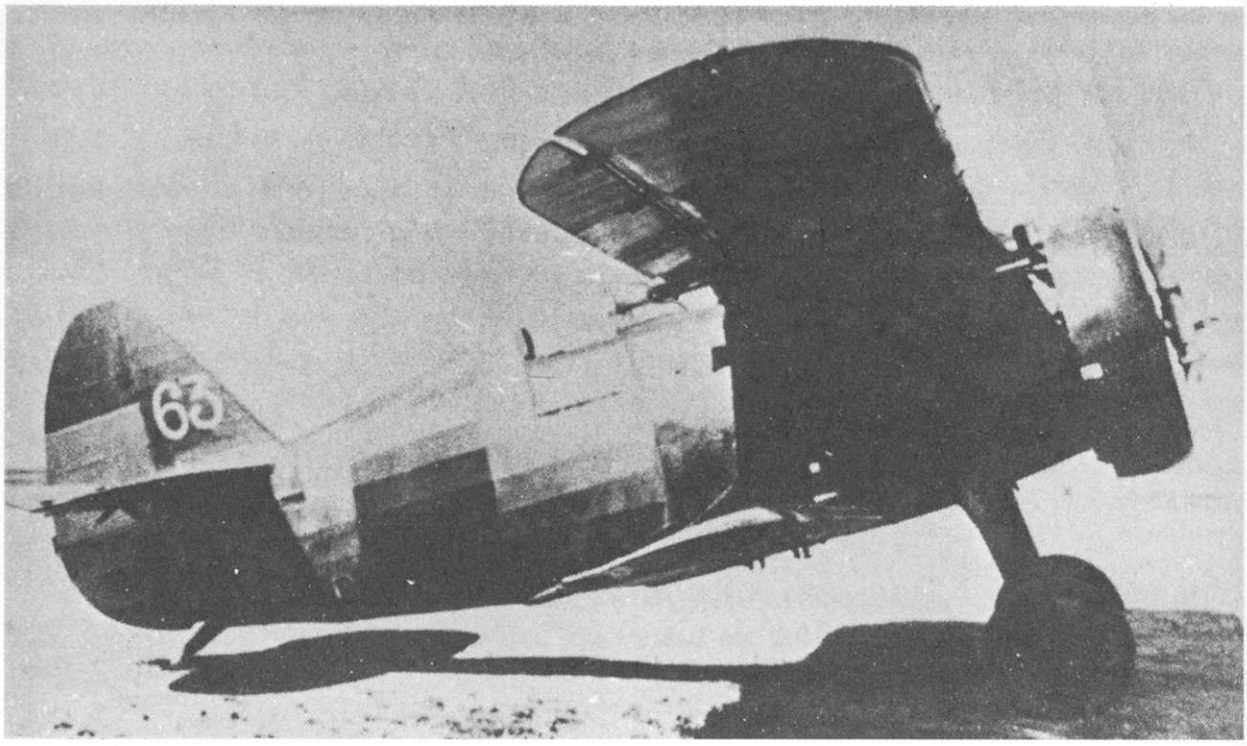
27. A Spanish Republican fighter pilot of the 7e *Escuadrilla de Moscas* based in the Barcelona area, carries on his flying jacket the 'Popeye the Sailorman' emblem of his unit. This was also painted on the tail fins of the unit's I-16s.

German units now returned to cover the drive on Santander, which fell on 22 August. Four more victories in this period raised the score of Fw. Wilhelm Boddem to eight, the greatest score yet by a German pilot. While mopping-up continued around Santander, the Republicans concentrated 80,000 men west of Barcelona and at the end of August launched the Belchite offensive towards Saragosa, supported by 150 aircraft. Saragosa was seriously threatened by the 26th, and Nationalist aircraft were rushed to the area; the *Cadenas*, heavily committed, suffered significant casualties.

FIAT CR.32

The following specification of one of the most widely used fighter types of the Spanish Civil War gives a representative example of the performance of combat aircraft of international standing just two years before the outbreak of the Second World War:

Powerplant One Fiat A30RAbis in-line liquid-cooled engine rated at 600hp at 2,750rpm with adjustable pitch airscrew diameter 9.24ft
Wing span (upper) 31.168ft (*lower*) 20.16ft *Length* 24.29ft *Height* 8.63ft *Wing area* 237.88sq ft
Weight (empty) 3,205lbs *Weight (loaded)* 4,220lbs *Useful load* 1,115lbs, *of which* pilot = notional 176lbs. fuel = 572lbs, ammunition (350rpg) = 129lbs
Performance at 600hp and 2,750rpm:
Max. speed at sea level 206mph *at 10,000ft* 220mph *at 20,000ft* 208mph
Landing speed 65mph
Climb to 3,000ft 1 min 35 secs *to 10,000ft* 5 min 25 secs *to 20,000ft* 14 min 25 secs
Take-off run 890ft *Landing run* 755ft
Combat ceiling 25,250ft *Range at 15,800ft and 196mph* 485 miles
Armament Two nose-mounted 12.7mm Breda-SAFAT machine guns

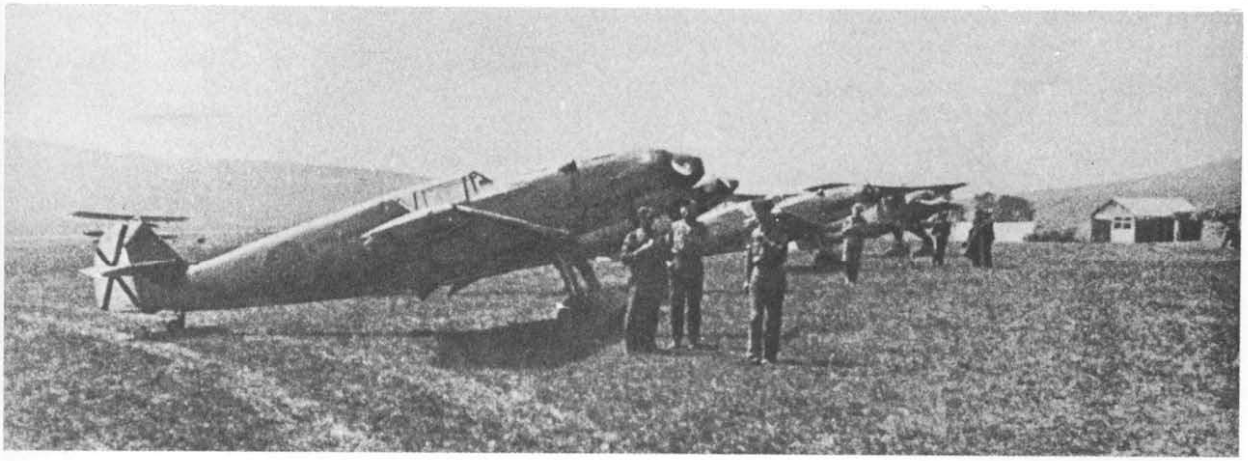


28. Polikarpov I-15 *'Chato'*. (via C-J. Ehrengardt)

The Republicans are estimated to have lost 30 fighters in a week of intense fighting, and the Nationalists lost, among others, three Ju52/3ms which blew up due to faulty bomb release mechanisms. Franco refused to be distracted from his climactic northern offensive, however, and on 4 September drove into the Reds' remaining enclave in Asturias; *1.* and *2.J/88*, both now flying Bf109Bs, enjoyed success and by the end of the month Republican air opposition had been neutralised. Boddem and Harder had each claimed ten victories by 13 October, and the Republican destroyer *Ciscar*, with members of the High Command on board, was sunk while attempting to leave Gijon. The Republican northern front collapsed, and 150,000 prisoners fell into Franco's hands; he was able to regroup his forces, and nearly all the rest of the significant battles were fought on the north-east front in Aragon and Catalonia. Two *escuadrillas* of I-16s and two of I-15s fell into Nationalist hands in the north, only four aircraft and a few pilots escaping to France.

By this time few of the highly-paid but disenchanted foreign volunteer pilots were still flying with the Republicans, whose own pilots were returning from Russian training in large numbers. The Americans and Yugoslavs had gone, after the Brunete fighting. Abel Guides had been shot down and killed in a transport aircraft on 8 June. Bozko Petrovik had been killed after his seventh victory. Tinker had claimed eight kills and Baumler five, while another American, Eugene Finnick, had flown recce-bombers – probably Polikarpov R-Zs – with distinction before being shot down and wounded. The Russians continued to rotate aircrew through Spain to gain combat experience, and sent further batches of fighters; another fifteen I-16s arrived in September, and late in the year the first I-152 'Super-Chatos', which were superior to the CR.32 on almost all counts. The difficulties of shipping direct to Spain were overcome by delivering crated aircraft to France, but the succession of a less sympathetic French government towards the end of the year led to the closing of the border.

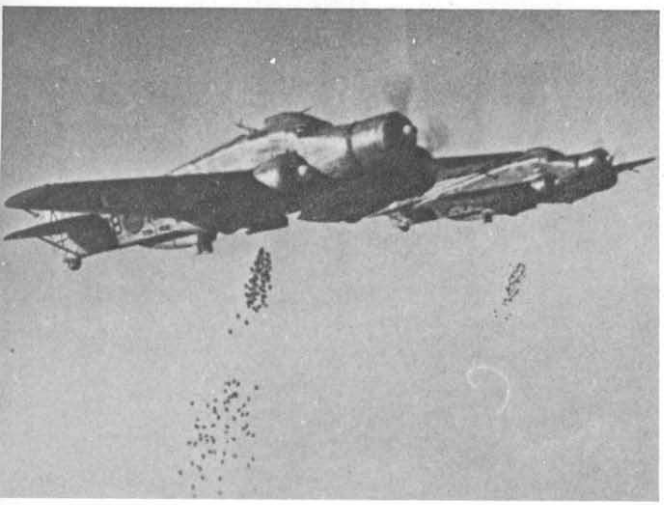
At this time the first examples of the improved I-16 Type 10 arrived, an aircraft which could outclimb, out-turn, and, with its four guns, out-shoot



29. The answer to the improved Russian fighters employed by the Republicans was the Messerschmitt Bf 109B. Following a brief evaluation of a batch of pre-production prototypes, *2 Staffel* of *J/88* was re-equipped with these aircraft. In the background are two of the He 51Bs which they replaced.

the Bf109B. The Messerschmitt continued to enjoy an edge as regards ceiling, however, and was a more stable gun-platform. The *Legion Condor* pilots now adopted the 'Mosca's' own technique of diving into the attack from high altitude and breaking quickly upwards.

The government aircraft factories produced a considerable number of licence-built I-15s during 1937, apart from spare parts for Russian types generally; and now the Hispano-Suiza plant tooled up for production of I-16 Type 10s, to be fitted with Wright Cyclones due to lack of Russian engines. Towards the end of 1937 another 31 SB-2s arrived,

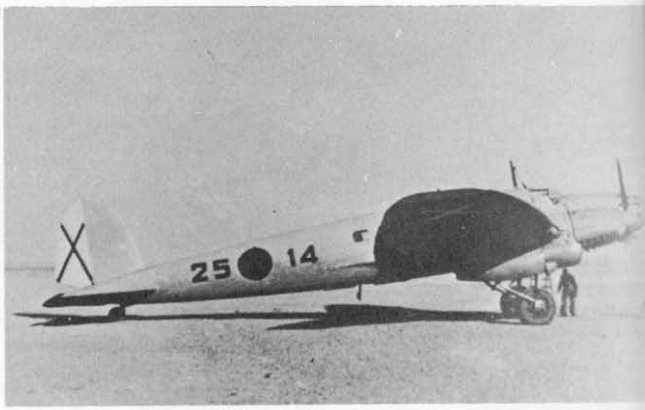


30. A pair of Savoia SM 79 bombers of the *280ª Squadriglia, 29° Gruppo, 111 Stormo B.V.*, release loads of small anti-personnel bombs on a front-line target. (Nicola Malizia)

and ten Letov S.231s are also reported to have been supplied. Russia apparently purchased two Belgian cannon-armed Fairey Ferocé biplanes and passed them to the Republic; one seems to have been lost very quickly, but the other achieved useful results. The main non-Russian type to arrive was the Grumman GE-23, a two-seat recce-fighter biplane with retractable undercarriage. Built by Canadian Car and Foundry Co., this version of the US Navy's FF-1 equipped the new *Grupo num 28* formed in December 1937; some 40, originally ordered by Turkey, had arrived by autumn 1938. In September 1937 the Republic still had a powerful air force of some 470 machines; but although their enemies mustered only some 350, the balance would now tip inexorably in favour of Franco, who had acquired a superior industrial base with the capture of the Basque provinces.

Two new *grupos* of Nationalist SM.79s, *4-* and *5-G-28*, were nearly ready for operations; the A-101 and He70F were both now in full use as bombers, although the former were soon relegated to second-line duties. During September Morato – with 27 kills, the outstanding fighter pilot of the war – handed over *2-G-3* to Salas and went on a mission to Italy. That month six Fiat BR.20 bombers joined the *29° Gruppo* as the *230ª Squadriglia*, beginning operations from Soria. In November they were joined by the Breda 65s to form the *35° Gruppo Misto* at Tudela. In Majorca nine Cant Z.501 flying-boats now formed *2-G-62*. During September the

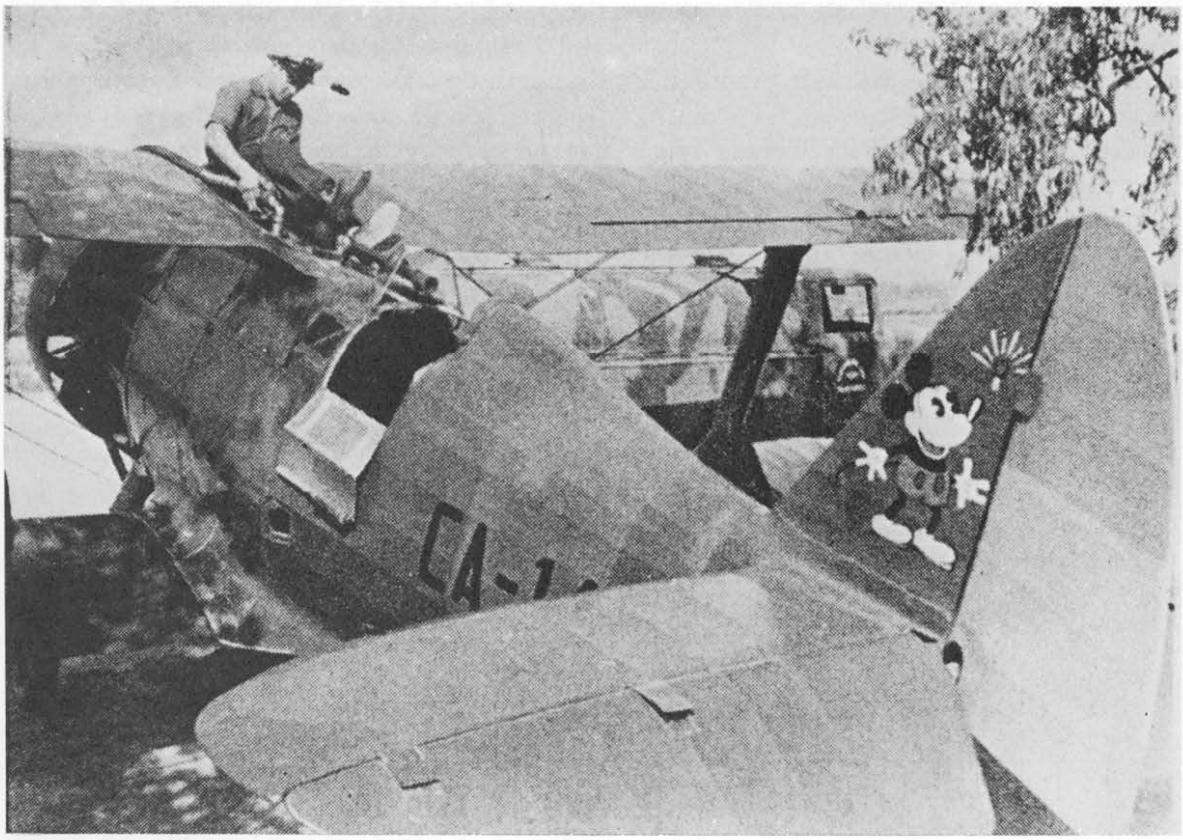
Legion Condor also received new equipment – three Junkers Ju87A-1 dive-bombers from St. G163, manned by rotated crews, formed the *'Jolanthe Kette'*. Their debut in the later stages of the forthcoming battles in Aragon was dogged by technical problems, but in time they proved themselves. Five obsolescent diesel-engined Ju86D bombers were also flown briefly at the end of the year before being handed to the Nationalists.



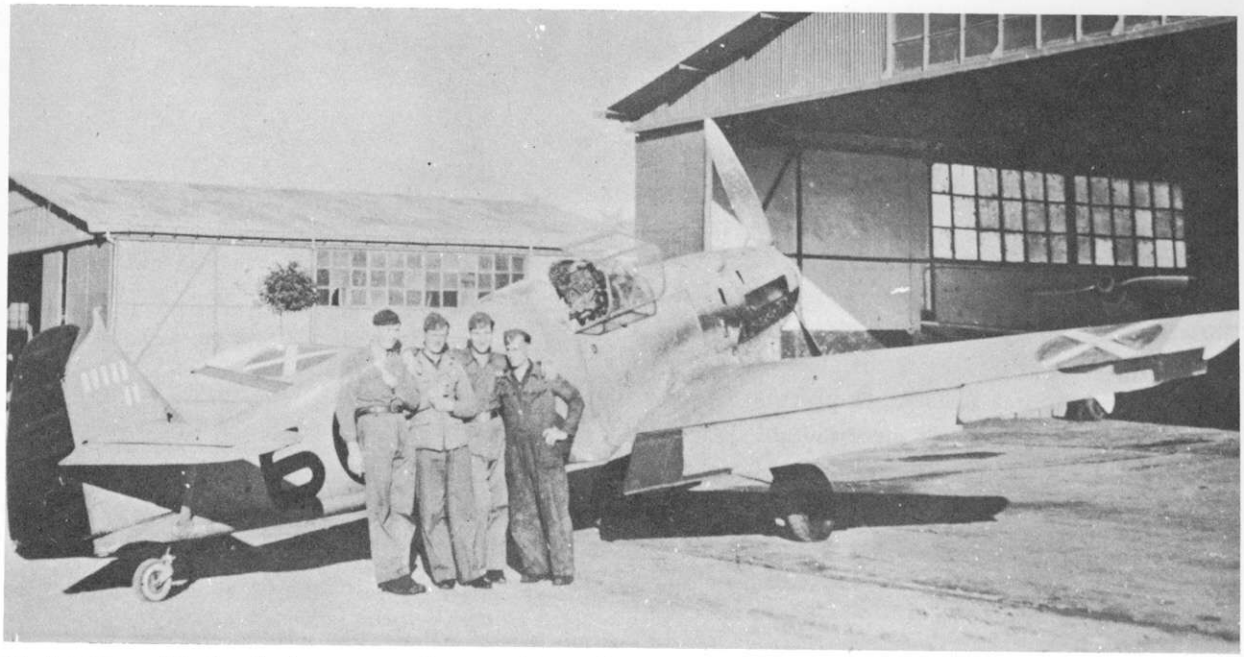
31. Heinkel He 111B of the *Legion Condor*. These aircraft were later handed to the Nationalists after more modern E models had arrived from Germany for *K/88*. The first Spanish He 111 unit, *10-G-25*, went into action during the Battle of the Ebro in August 1938. (Franz Selinger)

BELCHITE, AUGUST 1937

The Republican offensive at Belchite on 24 August 1937 was paralleled by an attack at Teruel, on the 'elbow' of the front line. Although Belchite fell on 6 September the Republicans did not follow up their advantage immediately; new thrusts were made on Huesca in the Pyrenean foothills on 22 September, but had made little progress by 6 October. On 15 October one of the most successful Republican air operations of the war took place. Y.S. Ptukhin led his R-Z *escuadrilla* and four units of fighters (the I-15 squadron led by Serov and the



32. A Republican ground crewman refuels an I-15. Note the 'Mickey Mouse' emblem of one of the *Escuadrillas de Chatos* on the tail fin.



33. A group of *Legion Condor* personnel pose with a Bf 109B during 1938. This aircraft has been flown by one of the more successful pilots, as can be seen by the seven victory bars painted on the fin. (Franz Selinger)

I-16 squadrons of Gusaev, Smirnov and Yeromenko) in an attack on the Nationalist airfield of Garapinilias near Saragosa; three Ju52/3ms, a number of He46s and six CR.32s were destroyed. That morning Red fighters had already shot down five CR.32s of the *'Gamba di Ferro'* group over Belchite.

Yet another Republican push at Teruel pre-empted a planned Nationalist winter offensive at Guadalajara; Teruel fell on 7 January 1938, but was retaken by Franco soon afterwards. Air operations were intense, particularly on 19 January, when 400 Nationalist aircraft flew sorties all day, dropping some 110 tons of bombs. Late that month a Red counter-attack stabilised the front once more. In response to regular attacks on Barcelona launched from the Balearics, SB-2s – now manned largely by Spaniards – bombed Seville and Valladolid on 26 January. A reprisal raid on Barcelona by nine SM.79s two days later killed 150 people; and on 6 February the Republican government left the city, where it had moved from Madrid in 1936, and transferred to Burgos.

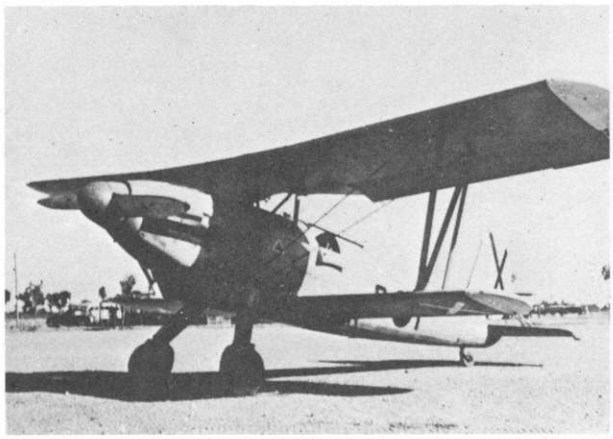
In December 1937 23 more CR.32s gave Franco two new *escuadrillas*; *3-E-3* served within *2-G-3* temporarily, but when *4-E-3* appeared the two made up the new *3-G-3* in January 1938. By March each *grupo* had three *escuadrillas*, many He51 pilots transferring to Fiats. On 7 February violent dog-fights flared up over the river Alfambra, a weak Republican sector north of Teruel where Franco launched an offensive. The Bf109Bs claimed ten SB-2s and two I-16s, four bombers falling to Oblt. Wilhelm Balthasar of *2.J/88*. The *Legion Condor* recorded its hundredth kill over Teruel in January – a figure which would be more than tripled in the next fourteen months. The thrust into Red territory made progress, and on the 17th a new southwards drive was launched; this saw the belated operational debut of the Stukas, which achieved a high reputation for accurate bombing. The faithful Hs123s were handed over to the Nationalists. Seven Republican fighters fell to the Messerschmitts on the 21st; but a leading Nationalist bomber pilot, Capt. Carlos Haya Gonzales, who was flying a CR.32 with the *'Assi di Bastoni'* that day, died in a collision with an I-15.

On 6 March 1938 the greatest naval battle of the war took place by night off Cartagena, and was won by the Republic. Next morning I-16-escorted SB-2s bombed surviving Nationalist ships, but reaction was swift. Forty-five new He111Es had arrived to re-equip all four *Staffeln* of *K.88*, and 25

of them now attacked Red naval bases, putting the battleship *Jaime I* out of action for the rest of the war.

On 9 March a new Nationalist offensive got under way in Aragon; Belchite fell on the 10th and Montalban on the 13th. On the 22nd an attack near Huesca made good progress, and by 5 April Franco's troops could see the Mediterranean glittering in the distance. On the 15th they reached the coast at Vinaroz, between Barcelona and Valencia, splitting the Republic in two. Heavy air fighting accompanied these ground actions; Nationalist ground support was vigorous, with the inevitable price of heavy He51 losses. The Republican Grumman 'Delfins' of *Grupo num 28* operated in the light bombing and strafing rôle, losing four shot down and two destroyed on the ground during February. *Legion Condor* air raids on Republican airfields were notably effective during this period. On 16 March three days of raids on Barcelona from Majorca began with an attack by six He59s, and sixteen other attacks followed in quick succession. In 72 hours 1,300 people were killed and 2,000 injured. One result was the re-opening of the French border and the consequent release of blocked war material, including 22 I-16 Type 10s which allowed the formation of a new *6ª Escuadrilla de Moscas* and the reinforcement of the other five. There was no shortage of replacement aircraft as government factories at Sabadell and Reus were turning out I-15s at a good rate; that they were necessary was underlined by the 40 victories claimed by *2-G-3* alone between December 1937 and April 1938.

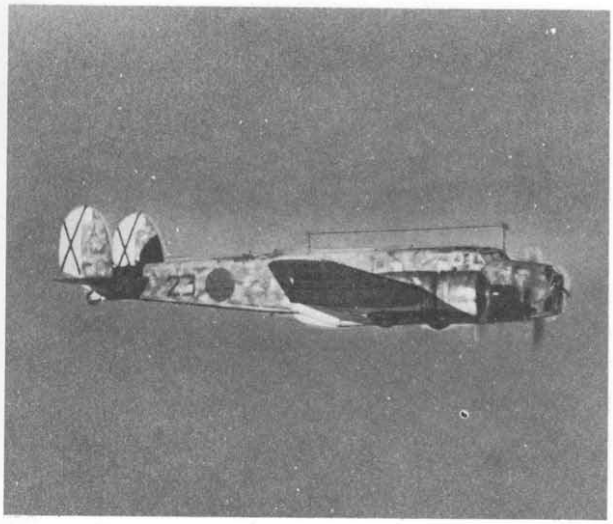
Operations in Aragon continued. On the northern part of the front Franco advanced right up to the French frontier, reaching the line Balaguer–Lerida, while an advance southwards from Teruel made good progress late in April before slowing to a gruelling slogging-match. The persistent Nationalist efforts to reach Valencia were finally held in July. In April five four-gun Bf109Cs arrived for *3.J/88*, which now gave up ground-attack sorties. Command passed from Oblt. Galland to Oblt. Mölders – two names which were to become household words in fighter circles within two years. The last He51s went to the Spanish, who formed a second 'Chain' unit, *Grupo de Cadenas 4-G-2*. Another SM.79 unit arrived from Italy that month, the *30º Gruppo* joining the *29º Gruppo* to form the *111º Stormo B.V.*



34. A pair of Arado Ar 68E fighters were supplied to the Spanish Nationalist *Grupo G-9* for operational night fighter trials. The first of these aircraft is seen here at La Cenia airfield. (Hans Obert)

Early summer 1938 saw Russian personnel finally withdrawn from the Republican air force; Stalin saw the Republic as a lost cause, and was intent on his vast, insane purges. Although 200 Spanish aircrew had been trained in Spain and 600 in Russia, most were still novices; the quality of opposition to Nationalist air operations now showed a marked deterioration. Many of the Russians had gained valuable experience and had achieved good results. Anatoli Serov seems to have been the most successful fighter pilot, with either sixteen or thirteen kills. P. K. Rychagov claimed fifteen, and I. T. Yeremenko fourteen. I. A. Lakeiev, who had returned home in July 1937 after flying I-15s and commanding the *1ª Escuadrilla de Moscas*, had at least twelve victories. This score was equalled by S. P. Denisov and V. I. Bobrov. It has been suggested, but not confirmed, that the famous test pilot Stepan Suprun flew in Spain and claimed twelve to fifteen victories. The claim that the Bulgarian Goronov ('Zakhar Zakhayinov') was top-scorer with 22 kills is believed to be spurious. Many Hero of the Soviet Union awards were made for Spanish service, but most senior officers and many leading pilots with Spanish experience died in purges soon afterwards.

Despite the division of the Republic, communications along the coast were possible and the war



35. The Fiat BR 20 bomber was also employed in Spain by the Italians from mid-1937 onwards, though never in such large numbers as the SM 79s and SM 81s. An aircraft of the *35° Gruppo Autonomo Misto* is seen in flight during 1938. (Nicola Malizia)

went on; about half the available air strength was maintained in each sector. Although personnel had been withdrawn, 99 more I-16 Type 10s arrived by early summer 1938, and the six 'Mosca' *escuadrillas* were brought up to full strength. One of the best days for Republican fighters came on 22 May, when 22 victories were claimed, including two of the fast SM.79s. Losses also rose sharply, however, particularly in the north, where about 30% of available aircraft were lost each month. The government now planned a major offensive here, with a more limited attack in Estramadura. In view of their now-limited resources this plan was a fatally costly mistake, ending the war much earlier than might have been the case if a defensive posture had been maintained.

THE EBRO, JULY 1938

In mid-July the southern offensive began at Merida, followed by a Nationalist counter-attack. On 24/25 July the major offensive on the Ebro was launched, and initially it made good progress; much Nationalist ground was taken, and enemy initiatives on other fronts were brought to a halt. The Republican advance was finally blocked at Gandesa on 2 August, partly by devastating air attacks. Throughout August Franco counter-attacked, and the

36. A *Squadriglia* commander of the *16° Gruppo C.T. 'Cucaracha'* with his brightly-decorated Fiat CR 32. (M. Carmello via Nicola Malizia)

Republicans were pushed back into the mountains, where they dug in. Artillery duels and air attacks now took the place of ground movements, and by this time command of the air had passed decisively to the Nationalists. Some 200 of their aircraft circled above the defences, dropping 10,000 bombs a day. The attackers comprised 40 SM.79s, 30 He111s, 30 Ju52/3ms, 20 SM.81s, eight Do17s, nine Ba.65s, and seven *escuadrillas* of *'Cadenas'*. During June a fifth Nationalist SM.79 unit, *6-G-28*, joined operations; and in July the hand-over of all remaining *Legion Condor* Dornier bombers allowed the formation of *8-G-27*. In August the first full *grupo* of He111Bs and Ds was ready for action as *10-G-25*, manned by Spaniards who had gained experience flying with *K/88*. A seventh CR.32 *escuadrilla*, *8-E-3*, was formed, and the He46 units were disbanded, surviving aircraft going to Malaga to join the old Breguets on training duties.

Italian units in the north were joined in July by the *231ª Squadriglia* of BR.20s, which served with the *230ª* and the Breda-equipped *65ª* in the *35º Gruppo Autonomo*. Operations in *gruppo* strength began at once from Puig Morena. Sixteen Caproni Ca.310s were delivered to join the Ro.37bis in the army co-operation rôle, and four Cant Z.506B trimotor floatplane bombers were tested by Spanish units in Majorca. Twenty-five Meridionali Ro.41 biplane fighter trainers, test examples of the Caproni Ca.135 bomber, and AP-1 and Breda 28 trainers also reached Spain. A ground-strafing unit of CR.32s, Capt. Vosilla's *Squadriglia Autonomo Mitragliamento 'Frecce'*, was sent to Spain so that Italian pilots could gain experience in *'Cadena'*-type operations. Italian bombers were very active over the Ebro, but in September the *21º Stormo B.P.* was withdrawn, its SM.81s going to form the Nationalist *15-*, *16-*, *17-* and *18-G-21*. The next month the new Ca.310s formed *8-* and *9-G-18*.

37. A Republican pilot climbs into his Polikarpov I-16 fighter. Note the Hucks starter in place at the nose, and the gunsight in front of the cockpit.

For operations in Estramadura the He70Fs of *7-G-14* (*3-* and *4-E-14*) arrived from the north to join the A-101s of *5-G-17*. *Grupo 86/70* formed with Ju86Ds, He70Fs and Hs123s. The complete force of Ju52/3ms was also sent down, with the *'Cadenas'* of *4-G-2* and the two Spanish CR.32 *grupos*. After the initial threat had been averted these latter went north again, only to return to the south, this time with *8-E-3* as well, when a new Republican attack was mounted on the bend of the river Zujar. At first the fighting on this front was mainly against I-15s and *'Papagayos'* – the collective name for such light bombers as the R-5s and R-Zs, GE-23s, and so forth – but in August SB-2s and I-16s appeared and the CR.32s were involved in quite heavy fighting. On 2 September one of the most memorable Nationalist fighter actions occurred on this front. While escorting Ju52/3ms, Ju86Ds and He70Fs over Zarzcapilla the Fiats of *2-G-3* encountered two sections of SB-2s from the *4ª Escuadrilla de Katiuskas* with a strong I-16 escort. Without loss the CR.32s shot down four bombers and five fighters, all confirmed by Republican sources; one I-16 and three SB-2s fell to Capt. Salas, to equal Balthasar's record of four kills in one sortie.

Morato was also back in action. Now commander of the new 1st Hispano Air Brigade, encompassing all the Nationalist units in the north with modern equipment, he had flown several sorties with Salas's *2-G-3* and gained further victories. In July he took command of *3-G-3*, and by the time the

38. The *'Patrulla de Toros'* (Bull Patrol) with one of their Polikarpov I-15 fighters at Barcelona.

Fiat group was sent back to the Ebro in mid-September his score had reached 34.

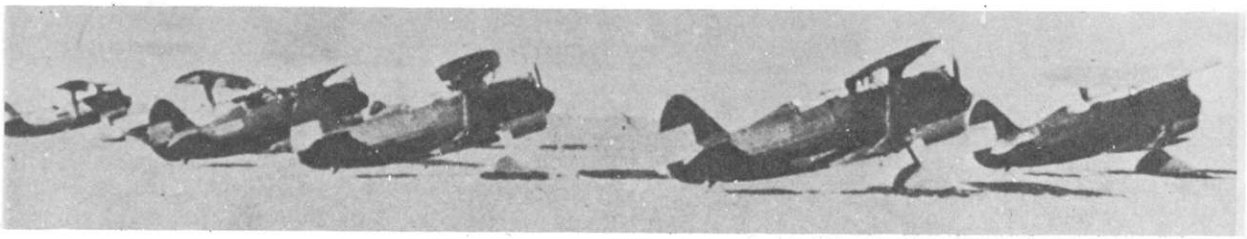
Meanwhile the Germans and Italians were steadily wearing down the Republican fighter units on the Ebro. Of 277 I-16s delivered so far, 177 had now been destroyed and only 35 were available at the front in June 1938. At least 50 more fell over the next three months, including fifteen in nine days during mid-August; and although a seventh *escuadrilla* had been formed during that month following further small deliveries, by October no more than three *escuadrillas* could be kept operational with 'Moscas'.

The Bf109Cs of *3.J/88* entered action in July, Mölders claiming his first three kills in that month. By the end of August the top-scorer of the *Legion* was Oblt. Schellman, leader of *1.J/88*, with twelve victories, seven of these being claimed in little more than a month over the Ebro. In August five of the latest Bf109Ds arrived for *3.J/88*, and in October five Ju87Bs replaced the Ju87As of the *'Jolanthe Kette'*. Six Arado Ar95 floatplanes joined the He60Cs in the coastal recce unit; finally, two Arado Ar68E fighters arrived for night trials and were sent to Capt. Javier Murcia's *Grupo G-9* at La Cenia. In September Nationalist and Republican thrusts and counter-thrusts on the Ebro and Teruel fronts alternated in quick succession, and late in October a major Nationalist offensive was launched. By this time constant League of Nations pressure for the withdrawal of foreign elements had resulted in the departure of many of the International Brigade soldiers. Surprisingly, a number of Italian troops were withdrawn as a counterbalance.

On 3 October the Nationalists suffered a shock when both Morato and Julio Salvador, the second top-scoring ace with 24 victories, failed to return from a fight with 'Moscas' after escorting Ro.37bis aircraft over the front. Morato, hit by another Fiat pilot, force-landed safely; but Salvador baled out over enemy territory and was captured. This was all the more of a shock in view of the fact that only about 50 Republican fighters of all types were now available to resist the new Ebro offensive, and even these few were being swept from the skies. On 10 November Capt. Guido Nobili's *'Assi di Bastoni'* claimed fourteen kills. On the 3rd Mölders had claimed his fourteenth personal victory, ten of which had fallen in less than two months. By mid-November Franco's troops broke through the Republic's mountain defences and pushed the enemy back over the Ebro with about 70,000 casualties and the loss of some 200 aircraft.

Some Spaniards joined *J/88* in October to gain experience on the Bf109, as it was now planned to supply Franco with the most modern types. In November the arrival of seventeen He112B-Os allowed formation of *5-G-5* under José Muñoz Jiménez, a former *'Cadenas'* commander. The Heinkels equipped one *escuadrilla* led by Capt. Miguel Garcia Pardo, the intention being to form the second, when Bf109s became available. *Grupo G-24* was formed as well with Hs123As, and in January 1939 twelve Fiat G.50 monoplanes reached Escalona to form the *Gruppo Sperimentale Caccia*

39. Republican searchlight troops at Barcelona.



40. The *'Super-Chato'* was the name bestowed on the Polikarpov I-15bis (or I-152), which reached Spain in more limited numbers than the I-15, and somewhat later in the conflict. A development of the latter fighter, it proved superior to the CR 32. A number are seen here on a French airfield after the fall of Barcelona.

under Maggiore Mario Bonzano. They were attached to the *23º Gruppo* in March 1939, but too late to see action.

The *Legion Condor*, now commanded by Wolfram von Richthofen, received six Hs126As to replace the remaining He45s in *A/88* for tactical recce and light bombing duty; they proved successful during their brief service. The *Legion's* strength now stood at 40 He111Es; three Ju87Bs; 45 Bf109Bs, Cs and Ds; five Do17Ps; six Hs126As; and eight He59s. By the end of 1938 it had lost a total of 96 aircraft, about half of them to hostile aircraft.

On 23 December 1938 the final drive against Barcelona began. The second day of the advance saw a big dog-fight flare over the battlefield as the Republicans threw their remaining I-16s and R-5s into action; *3-G-3* claimed nine out of a formation of eleven bombers, three falling to Morato. The Italo-Spanish ground forces, spearheaded by armour, forced the Republicans to begin a retreat on 3 January 1939; the impetus of Franco's advance picked up, and Barcelona fell on the 25th. By early February the Nationalists had almost reached the French frontier, over which many Republicans fled, together with the remaining aircraft in the northern sector. During these operations the He112 *escuadrilla* of *5-G-5* saw action, providing top cover for the CR.32s. On 19 January Capt. Garcia Pardo claimed the unit's only victory, an I-16 over Balaguer – his twelfth personal victory. The same combat saw Garcia Morato's fortieth and final victory of the war, over an I-15. Morato was now appointed commander of the whole Nationalist fighter force.

Trying desperately to ease pressure in Catalonia, the Republic launched an offensive in Estramadura early in January and advanced in the area of Pozoblanco. The SM.81 units, with the Fiats of *2-G-3* and *8-E-3*, were despatched to this front, where some of the last air fighting of the war took place. The CR.32s quickly dealt with most resistance, but on 23 January lost their third-ranking top-scorer; Manuel Vasquez Sagistazabal, who had taken over Salvador's *escuadrilla* in October, fell to the guns of an I-15. By early February the line had been stabilized much in its original position.

With the end of the northern campaign the Nationalist army was redeployed in the central and southern zones, with the air units forming a great crescent around Madrid. In the starving Republican areas the political factions were at each other's throats, and in March fighting actually broke out between them in Madrid. No action was taken by Franco, who hoped for a negotiated peace, but air patrols continued.

Early in the year *J/88* had received 40 new cannon-armed Bf109E fighters, and the outdated early marks were passed to *Grupo 5-G-5*. On 5 March Mölders's replacement as leader of 3 *Staffel*, Oblt. Hubertus von Bonin, shot down an I-15 over Alicante – the last aerial victory of the war, and his fourth personal kill. The last new unit ready for action in this period was the second Spanish He111 *grupo, 11-G-25*, which entered the line in February. The Avias were now relegated to training.

Peace negotiations failed, and on 27 March the Nationalist army advanced from Toledo. All resistance disintegrated before them. The next day they entered the capital, and the war came to an end at last.

SUMMARY

Some 22 operational I-16s, 36 R-5s, nine R-Zs, nine Grumman GE-23s, nineteen SB-2s, 20 I-152s, 44 I-15s, five Vultee single-engined transports, and some 150 miscellaneous and non-combat types fell into Nationalist hands at the end of hostilities, together with semi-completed aircraft found under construction in government factories which included 90 I-16s and about 200 I-15s. Since the departing German and Italian units left most of their aircraft behind, Franco was in possession of quite a sizeable and modern air force.

The most numerous type supplied to the Nationalists was the Fiat CR.32, of which 405 were sent for Spanish and Italian use. Other Italian types supplied in significant numbers were 99 SM.79s, 65 SM.81s, and 36 Ro.37bis. The Italians lost at least 73 CR.32s, five SM.81s, four SM.79s, and two each Ba. 65s, Ro.37bis and BR.20s. Italian aircrew killed in action totalled 175. They claimed 703 victories, including 242 I-16s, 240 I-15s, 48 SB-2s, and fourteen Potez 540.

Nationalist aircraft losses are unknown, and widely differing figures have been put forward. It is known that 43 CR.32s were lost to all causes by Spanish units, that eight Ju52/3ms were lost in action, and that four Spanish SM.79s were lost. Nationalist fighter pilots claimed 294 victories in all, including 126 I-15s, 94 I-16s, and fourteen SB-2s. When it is recalled that the majority of the *Legion Condor's* 314 claims were also for these three types, it is clear that there was some fairly substantial overclaiming. The sum of claims and captured machines exceeds in some cases the total numbers supplied, to say nothing of the normal attrition due to accidents, etc., which are known to have been fairly numerous in the Republican air force.

Totals of French types supplied are not in serious dispute, but totals of Russian types are. Figures published regularly are as follows:

Polikarpov I-15 and I-152	550	bought and built
Polikarpov I-16	475	,, ,, ,,
Tupolev SB-2	210	,,
Polikarpov R-5	130	,,
Polikarpov R-Z	40	,,
	1,405	

In his *'Air War Over Spain'* Jesus Salas Larrazabal quotes 416 I-15s and 280+ I-16s, implying that total SB-deliveries were 93. The Republic was trying to acquire aircraft right up to the end of the war, and in 1939 had agreed purchases of five Koolhoven FK-52s and twelve Fokker G-1s.

Fighter Aces

Details are unclear, but by the war's end several Republican pilots are reported to have achieved scores in double figures; these included Capt. José Bravo Fernandez, Capt. Miguel Zambudio Martinez, Maj. Manuel Zarauza Claver, and a pilot named Ramirez. The same order of victories may have been achieved by the long-serving Maj. Manuel Aguire Lopez.

Twenty Nationalist pilots gained five or more victories, and ten gained ten or more, as below. About the same number of German pilots gained five victories (an interesting fact, since total claims for the two air forces were so similar – 294 and 314) but only three achieved double figures. Many pilots were rotated through *J/88*, of course, and the total victories were thus spread thinly over a large number of men. The large Italian fighter force claimed a much higher overall total, but it was not their practice at this time to encourage adulation of individuals and no personal kill list was pre-

41. A rudimentary bomb hoist is employed for the arming of a Fiat BR 20 bomber of the *35° Gruppo Autonomo Misto* at Tablada airfield. In the background can be seen a variety of aircraft including several Caproni Ca 310 twin-engined light bomber-reconnaissance aircraft, which were supplied to the Nationalists late in the war. (Nicola Malizia)

42. The first modern bomber to reach Spain – before the He 111 and SM 79 – was the Russian Tupolev SB-2. Known as the *'Katiuska'* to the Republicans and the *'Martin'* to the Nationalists, this aircraft at first proved very difficult to intercept. Used throughout the war in large numbers by the Republicans, a substantial quantity were taken over by the Nationalists after the final surrender. Some of these are seen here during repainting. The nearest aircraft has been partially repainted in Nationalist markings, but that next to it still retains its full Republican colours. (Franz Selinger)

pared; also, many victories were shared between several pilots. It is thought that at least fifteen pilots claimed five or more, and four are known to have claimed at least ten:

Nationalist	
Joaquin Garcia Morato	40
Julio Salvador Diaz-Benzumea	25
Manuel Vazquez Sagistazabal	$21\frac{1}{3}$
Aristides Garcia Lopez	17
Angel Salas Larrazabal	$16\frac{1}{3}$
Miguel Guerrero Garcia	13
Miguel Garcia Pardo	12
Joaquin Velasco Fernandez Nespral	11
Carlos Bayo Alessandri	11
Rodolphe de Hemricourt de Grunne (Belgian volunteer)	10
German	
Werner Mölders	14
Wolfgang Schellmann	12
Harro Harder	11
Italian	
Mario Bonzano	15
Adriano Mantelli	15
Corrado Ricci	10–12
Guido Nobili	10

Final Nationalist Order of Battle

Agrupacion Española

Grupo	1-G-2	He51
	2-G-3	CR.32
	3-G-3	CR.32
	4-G-2	He51
	5-G-5	He112, Bf109
	1-G-22	Ju52/3m
	2-G-22	Ju52/3m
	3-G-28	SM.79
	4-G-28	SM.79
	5-G-28	SM.79
	6-G-28	SM.79
	8-G-27	Do17E, F
	10-G-25	He111B, D
	11-G-25	He111B, D
	15-G-21	SM.81
	16-G-21	SM.81
	17-G-21	SM.81
	18-G-21	SM.81
	4-G-12	Ro.37bis
	6-G-15	He45
	7-G-14	He70F
	8-G-18	Ca.310
	9-G-18	Ca.310
	10-G-24	Hs123A
	G-86/70	Ju86D, He70F, Hs123A
	1-G-70	Do Wal
	2-G-62/73	Z.501, Z.506B

Legion Condor

J/88	Bf109E
K/88	He111E, Ju87B
A/88	Do17P, Hs126A
AS/88	He59A

Aviazione Legionaria

3° Stormo C.T.:	
6° Gruppo 'Gamba di Ferro'	CR.32
16° Gruppo 'Cucaracha'	CR.32
23° Gruppo 'Asso di Bastoni'	CR.32
Gruppo Sperimentale C.T.	G.50
22° Gruppo Aut. O.A. 'Linci'	Ro.37bis
111° Stormo B.V.:	
29° Gruppo 'Sparvieri'	SM.79
30° Gruppo 'Sparvieri'	SM.79
35° Gruppo Aut. Misto	BR.20, Ba.65
Sq. Aut. Mitragliamento 'Frecce'	CR.32
Aviazione Legionaria Baleari:	
10° Gruppo Aut. C.T. 'Baleari'	CR.32
8° Stormo B.V.:	
27° Gruppo 'Falchi delle Baleari'	SM.79
28° Gruppo 'Falchi delle Baleari'	SM.79

43. The *Aviacione Legionaria* leaves Spain in 1939. Fighter pilots go aboard the motorship *'Dulio'* in Barcelona harbour, in front of a special placard depicting their units. A string of Red aircraft are struck by the *23° Gruppo 'Asso di Bastoni'* (Ace of Clubs), wielded by the *16° Gruppo 'Cucaracha'* (Cockroach). As they come down they are kicked by the *'Gamba di Ferro'* (Iron Leg) of the *6° Gruppo*, encouraged by the fasce and three arrows emblem of the *Squadriglia Autonomo Mitragliamento 'Frecce'* (Arrow). At the head of the stairway stands *Maggiore* Aldo Remondino, one of the most successful Italian fighter pilots of the war. (Nicola Malizia)

Names and Designations

Every aircraft to enter service on the Nationalist side was given a type number which was painted on the fuselage side followed by an individual aircraft number, regardless of which of the three component formations it served with. The Nationalists themselves used this number in the unit title. Hence the CR.32, type number 3, was the equipment of the 1st *Escuadrilla* of CR.32s, *1-E-3*. Numbers from 1–9 were given to fighters, from 10–19 to attack and light bomber types, from 20-29 to multi-engine bombers, from 30–39 to light aircraft, from 40–49 to transports, and 50 and above to seaplanes and flyingboats. Captured types were numbered in the same sequence with the suffix W – thus captured I-16s were numbered '1W'.

On the Republican side a two-letter system was used. The first indicated the class, the second the type in the class, and the pair of letters was followed by an individual aircraft number. C designated fighters, B bombers, R reconnaissance types, A assault types, L light bombers and liaison types, T transport aircraft, H seaplanes, E trainers and F captured types. Thus aircraft CA-105 was the 105th example delivered of fighter type A, the I-15.

Many aircraft types received popular names which were widely used, beginning with the appearance of the first Russian types. Initially these were thought to be of American origin, the I-15 being mistaken for a Curtiss fighter, the I-16 for the Boeing P-26 and the SB-2 for the Martin B-10 (a fact which does not say much for Spanish aircraft recognition standards . . .) 'Curtiss' and 'Martin' remained in currency with Nationalist troops throughout the war, although SB-2s were also occasionally called 'Sofias'; the I-16 they dubbed *'Rata'* – 'Rat'. Single-engine two-seat biplane types tended to be lumped together under the name *'Papagayos'* – 'Parrots'. Most widely used popular names were:

Type	*Nationalist name*	*Republican name*
I-15	Curtiss	Chato
I-152	Super-Curtiss	Super-Chato
I-16 Type 5 & 6	Boeing, Rata	Mosca
I-16 Type 10	Super-Rata	Super-Mosca
SB-2	Martin, Sofia	Katiuska
R-5	Papagayo	Natasha
R-Z	Papagayo	Rasante
A-101	Papagayo, Oca	Praga
GE-23	Papagayo, Pedro Rico	Delfin
He59	Zapatones ('Big Shoes')	Aqua-Heinkel
He45 & He46	Pavo & Pava	
Hs126	Superpava	
Br.XIX	Sesqui	
He70	Rayo	
Ca.310	Capronchino	
CR.32	Chirri	
Hs123	Angelito	
Ju87	Stuka	
Do17	Bacalao ('Cod')	
He111	Pedro	
Ju86	Jumo	
Ju52/3m	Yunker	
Ro.37bis	Romeo, Cadena	
He51	Cadena	
SM.79, SM.81	Savoya	

Select Bibliography

'Air War Over Spain', Jesus Salas Larrazabal, Ian Allan, 1974

'Combat Over Spain', Duke of Lerma, Neville Spearman, 1968

'The Spanish Civil War', Hugh Thomas, Penguin, 1965

'Cardboard Crucifix', Oloff de Wet, Blackwoods, 1938 (U.S. *'The Patrol is Ended'*)

'Some Still Live', Frank G. Tinker Jr, 1938

'La Guerra en el Aire', Col. José Goma

'Guerra en el Aire', Joaquin Garcia Morato, Editoral Nacional-Madrid, 1939

'Mitos y Verdades', Andres Garcia LaCalle, 1973

'Cadenas del Aire', J. L. Jimenez Arenas, Editorial San Martin

'Yo Fui Piloto de Caza Rojo', Francisco Tarazona, Editorial San Martin

'Soviet Flies in Spanish Skies', Air Enthusiast Quarterly No. 1, 1976

LÉGENDES

1 L'ancien Breguet Br.XIX – 'Sesqui' – était employé des deux côtés pendant la premiére partie de la guerre. **2** Le Republicain Nieuport NiD.52 étant re-armé tout au debut de la guerre; remarquez le finissage argenté avec la bande rouge autour du fuselage. **3** Les avions Republicains préparent pour un raid a l'aube; remarquez la bande rouge de l'aile avec la cocarde. **4** Vickers Vildebeeste avec un moteur Hispano-Suiza 12 Lbr; les Republicains conservérent tous les Vildebeestes de la Marine. **5** Un des trois Hawker Furies piloté par les Republicains; remarquez les marques du fuselage rouge. **6** Les bombardiers Italiens SM.81 étaient employé pour le combat et les vols de transport; plus tard ils furent cédés aux forces Nationalistes. **7** Le Potez 540 Francais était le bombardier principal des Republicains dans les premiers mois, mais il subit beaucoup de pertes par la chasse Nationaliste. **8** Formation de chasseurs Fiat CR.32 du 16° Gruppo C.T. italien mené par un commandant de squadriglia, vu d'une tourelle d'un SM.81. Le CR.32 était le type de chasseur principal Nationaliste et Italien durant toute la guerre. **9** Un Dewoitine D.371/372 de l'escadrille de volontaires d'André Malraux, avec marques rouges republicains. **10** Bombardier Nationaliste Ju52/3m en vol; cet appareil était employé par les escadrilles de bombardiers et de transport Allemand dés le debut.

11 Trois fameux pilotes de chasse Nationalistes: Capt. Narciso Bermudez de Castro, Capt. Joaquin Garcia Morato, et Capt. Miguel Guerrero Garcia. **12** Heinkel He51B chasseurs du 2.J/88, Legion Condor. Quand il fut surclassé comme chasseur par nouveaux types Russes, le Heinkel était employé pour des missions d'attaque au sol. **13** Le Polikarpov I-15 donna la superiorité aerienne aux Republicains pendant l'hiver de 1936–37. **14** Un des premiers modèles du Polikarpov I-16 arrive en Espagne. **15** Le Meridionali Ro43bis fut employé avec succés comme bombardier léger par les Italiens et les Nationalistes durant toute la guerre. Cette photo represente une machine du 22° Gruppo Autonomo O. A. Linci. **16** Heinkel He70F de A/88, toujours dans sa peinture argentée originale. Plus tard ces avions furent camouflés et remis aux Nationalistes. **17** Un groupe de pilotes volontaires Americains qui combattirent pour les Republicains: de gauche a droite, premier plan – Harold Dahl, 'Chang' Selles, et Frank G. Tinker, avec des mécaniciens Espagnoles et un I-15 a l'arrière plan. **18** SM.81 du 21° Stormo, escorté par chasseurs CR.32 du 23° Gruppo 'Asso di Bastoni' au debut de 1937. **19** Deux CR.32s du 18ª Sq., 23° Gruppo en vol; remarquez la difference entre les camouflages. **20** Heinkel He111B de la Legion Condor après un atterissage forcé au debut de 1937.

21 Un des bombardiers en pique Henschel Hs123A dont se servit la Legion Condor pour attaque au sol. **22** Des SM.79, bombardiers rapides en vol (du 111° Stormo). **23** Le Polikarpov R-5 et le R-Z étaient surtout employés par les Republicains comme avion de reconaissance et bombardier léger; ici, un R-Z sur un terrain d'aviation espagnole. **24** Quatre CR.32s du 20ª Sq., 23° Gruppo, détruit par une attaque Republicaine sur le terrain de Garapinilias, Saragosa, le 15 Octobre 1937. **25** Sgt. Giovanni Carmello du 23° Gruppo et son avion de chasse, une Fiat. **26** En 1938 les premiers examples du Polikarpov I-16 (type 10) plus fortement armés arrivèrent. On en voit ici avec un camion démarreur Hucks. **27** Pilote Republicain du 7ª Escuadrilla de Moscas, basé près de Barcelone; sur sa tunique il porte l'emblême de l'escadrille 'Popeye the Sailorman'. **28** Polikarpov I-15 'Chato'. **29** Trois Messerschmitt Bf109B et à l'arriere plan les He51Bs qu'ils remplacèrent au 2.J/88 en 1937. **30** Deux bombardiers SM.79 du 280ª Sq., 29° Gruppo B.V. déchargent des petites bombes anti-personnels.

31 Heinkel He111B de K/88. **32** Mécanicien faisant le plein d'un I-15; remarquez le 'Mickey Mouse' peint sur le bout. **33** Un Bf109B, avec personnel allemand. Remarquez les sept marques de victoire sur l'empennage. **34** Un des deux Arado Ar68E chasseurs mis a l'epreuve comme chasseurs de nuit par le Grupo G-9 Nationaliste. **35** Bombardier Fiat BR.20 du 35° Gruppo Autonomo Misto, 1938. **36** Un commandant de l'escadrille du 16° Gruppo C.T., avec son chasseur CR.32, brillamment peint. **37** Un pilote Republicain monte dans son chasseur I-16. **38** La 'Patrulla de Toros' à Barcelone, avec un de ses chasseurs I-15. **39** Projecteur Republicain à Barcelone. **40** Plusieurs chasseurs I-152 'Super Chato' sur un terrain francais asprés la chute de Barcelone.

41 Un BR.20 du 35° G.A.M. prend son chargement de bombes sur le terrain de Tablada; a l'arriere-plan des bombardiers légers Caproni Ca310. **42** Le bombardier Tupolev SB-2 était employé en grand nombre par les Republicains. Ces appareils aprés leur capture; le plus proche a été repeint aux couleurs Nationalistes mais le second est dans son état original. **43** Les pilotes Italiens de la Avacione Legionaria embarquent a bord du vaisseau 'Dulio' qui quitte Barcelone en 1939. En haut de l'echelle Maggiore Aldo Remondino, un des aces Italiens, dont l'avion est représente en pages 28–29.

Notes sur les planches en couleurs

Page 25: Teniente, Armée de l'Air Nationale, en tenue de vol avec un calot de l'uniforme réglementaire. Le brevet du pilote nationaliste se trouve sur la tache rouge à la poitrine de l'anorak, ainsi que les deux étoiles dorées indiquant le rang – ces étoiles sont également sur le devant du calot.

Page 26 en haut: Potez 540 de l'Armée de l'Air Républicaine – piloté par Capitan Mellado et Teniente Moreno – qui bombarda le vaisseau de guerre *'Canarias'* le 23 Septembre 1936 et fut abattu deux jours plus tard par Teniente A.S. Larrazabal pilotant un CR.32 No. 103. La dévise peinte sur le côtê bâbord seulement se traduit approximativement par 'Je vous attends là'! **Page 26 en bas:** Heinkel He51 de l'Armée de l'Air Nationaliste, Groupe 1-G-2, à Aragon, printemps 1938. Les couleurs sont allemandes avec des attributs nationalistes. Le '2' du titre de l'unité et sur l'avion est le numéro du type du He51, et le '12' est le numéro d'idendité individuel de la machine. Insigne de ce groupement d'assaut peint sur le disque au fuselage.

Page 27: Dornier Do17F-1 du groupe de reconnaissance A.88, Legion Condor; Llanes, Octobre 1937. Couleurs allemandes 61 (marron) 62 (vert et 63 (gris) dans un camouflage de dessin anguleux avec des attributs nationalistes. '27' est le numéro du type du Dornier Do17 en service Espagnole.

Pages 28–29: Fiat CR.32 No. 854, piloté par le Major Aldo Remondino comme commandant du 23° Gruppo C.T. italien, 'As de Trèfles'; Escatron, section Teruel, août 1938. Camouflage italien avec des attributs nationalistes. La rayure blanche et le pennon sur disque noir sont des emblèmes du commandant du groupe; le '3' est le numéro du type du Fiat, et le '4' le numéro individuel de l'avion.

Page 31: Emblèmes des unités: (1) Emblème phalangiste peint sur les fuselage de beaucoup d'avions nationalistes. (2) Insigne de la Patrouille Bleue de Garcia Morato, porté sur l'empennage des CR.32s des 2-G-3 en 1937, et des 3-G-3 en 1938. (3) 4/J.88, peint sur le fuselage du He51. (4) K.88, peint sur le fuselage de He111. (5) 65°Sq.Assalto, peint sur l'empennage du Breda 65. (6) 8°St. B.V. Peint sur le fuselage du SM.79. (7 & 8) 3ª et 4ª Mosca Escadrilla, peints sur l'empennage du Polikarpov I-16.

Page 32 à gauche: Alferez (sous-lieutenant) de l'Armée de l'Air Républicaine en tenue de vol et portant un étui avec un pistolet automatique Astra. Tache de rang sur la poitrine indiquant le brevet du pilote républicain, au-dessus du galon de rang; remarquez que ce service porta un uniforme d'allure très navale. **Page 32 à droite:** Oberleutnant pilote, Legion Condor, 1939. La ganse argentée sur la calot dénote le rang d'officier; les trois étoiles en argent avec un fin trait jaune dénotent Oberleutnant. Le trait jaune indique officier d'équipage. Le brevet du pilote nationaliste est porté sur la poitrine, et en dessous de celui-ci est la Croix Espagnole, une décoration allemande, conférée en 1939.

ÜBERSCHRIFT

1 Die ältere Breguet Br.XIX – 'Sesqui' – wurde in der ersten Hälfte des Krieges von beiden Seiten verwendet. **2** Republikanische Nieuport NiD.52 wird zu Anfang des Krieges wiederaufgerüste: beachten Sie die silberne Ausführung mit rotem Ring um den Rumpf. **3** Republikanische Flugzeuge werden für einen Uberfall im Morgengrauen gerüstet: man beachte rote Streifen auf den Flügeln und Kokardeabzeichen. **4** Vickers Vildebeeste mit Hispano-Suiza 12 Lbr.-Motor; die Republikaner behielten alle Vildebeestes der Marine. **5** Eine von drei Hawker Furies, die von den Republikanern geflogen wurden. Man beachte die roten Rumpfabzeichen. **6** Italienische SM.81 Bomber wurden für Kampf- und Transportflüge benutzt; später wurden sie den Streitkräften der Nationalisten übergeben. **7** Die französischen Potez 540 waren in den ersten Monaten die Hauptbomber der Republikaner, doch sie erlitten schwere Verluste durch die Kampfflugzeuge der Nationalisten. **8** Formation von Fiat CR.32 Kampfflugzeugen einer italienischen 16° Gruppo C.T., geführt von einem squadriglia-Kommandanten, von der Geschützluke einer SM.81 aus gesehen. Die CR.32 war während des ganzen Krieges die Hauptkampfflugzeugtype der Nationalisten und Italiener. **9** Eine Dewoitine D.371/372 von Andre Malrauxs Freiwilligenstaffel mit roten republikanischen Abzeichen. **10** Nationalistische Ju52/3m Bomber im Flug; diese Type war das Arbeitspferd der nationalistischen und deutschen Bomber- und Transporteinheiten von den ersten Tagen des Krieges an.

11 Drei berühmte nationalistische Kampfflieger: Capt. Narciso Bermudez de Castro, Capt. Joaquin Garcia Morato und Capt. Miguel Guerrero Garcia. **12** Heinkel He51B Kampfflieger der 2.J/88, Legion Condor. Als die Heinkel als Kampfflugzeug von den neuen russischen Typen übertroffen wurde, wurde sie für Angriffsmissionen auf Erdziele verwendet. **13** Die Polikarpov I-15 gab den Republikanern im Winter 1936–37 Uberlegenheit in der Luft. **14** Eines der ersten Muster der Polikarpov I-16, die in Spanien eintrafen. **15** Die Meridionali Ro43bis war ein erfolgreicher leichter Bombertyp, der während des ganzen Krieges von den Italienern und Nationalisten verwender wurde. Dies Photo zeigt eine Maschine der 22° Gruppo Autonomo O.A. 'Linci'. **16** Heinkel He70F von A/88 noch in ihrer ursprünglichen silbern Ausführung. Diese Flugzeuge wurden später getarnt und den Nationalisten übergeben. **17** Gruppe von amerikanischen freiwilligen Piloten, die für die Republikaner flogen: von links nach rechts, vorn – Harold Dahl, 'Chang' Selles und Frank G. Tinker mit spanischen Mechanikern und einer I-15 im Hintergrund. **18** SM.81 von der 21° Stormo Anfang 1937, begleitet von CR.32-Kampffliegern der 23° Gruppo 'Asso di Bastoni'. **19** Zwei CR.32 der 18ª Sq., 23° Gruppo im Flug; beachten Sie die Unterschiede im Tarnmuster. **20** Einer der ersten Heinkel He11B Bomber der Legion Condor Anfang 1937 nach einer Bruchlandung.

21 Einer aus einer kleinen Gruppe von Henschel Hs123A-Sturzbombern, die von der Legion Condor für Angriffe auf Erdziele verwendet wurden. **22** Schnelle SM.79-Bomber der 111° Stormo im Flug. **23** Die Polikarpov R-5 und R-Z wurden von den Republikanern weitgehend als Aufklärer und leichte Bomber verwendet; hier eine R-Z auf einem spanischen Flughafen. **24** Vier CR.32 der 20ª Sq., 23° Gruppo, zerstört durch einen Angriff der Republikaner am 15 Oktober 1937 auf den Flughafen Garapinilias, Saragossa. **25** Sgt. Giovanni Carmello von der 23° Gruppo mit seinem Fiat-Kampfflugzeug. **26** 1938 kamen die ersten Exemplare der schwerer bewaffneten Polikarpov I-16, Type 10 an. Eines wird hier gezeigt mit einem Hucks Starterlast-kraftwagen. **27** Republikanischer Pilot der 7ª Escuadrilla de Moscas, die in der Nähe von Barcelona stationiert waren; aufseiner Jacke trägt der das Wappen der Staffel, 'Popeye the Sailorman'. **28** Polikarpov I-15 'Chato'. **29** Drei Messerschmitt Bf109B-Kampfflugzeuge und im Hintergrund die He51Bs, an deren Stelle sie als Ausrüstung der 2.J/88 1937 traten. **30** Zwei SM.79-Bomber vom 280ª Sq., 29° Gruppo B.V. werfen kleine Splitterbomben ab.

31 Heinkel He111B von K/88. **32** Mechaniker tankt eine I-15 neu auf, beachten Sie das 'Mickey Mouse' Abzeichen auf dem Schwanz. **33** Deutsches Personal posiert mit einer Bf109B (1938). Beachten Sie die sieben Sieges-Abzeichen auf dem Schwanz. **34** Eins von zwei Arado Ar68E-Kampfflugzeugen wird von der nationalistischen Grupo G-9 auf dem Flughafen La Cenia getestet. **35** Fiat BR.20-Bomber von der 35° Gruppo Autonomo Misto (1938). **36** Ein squadriglia-Kommandant der 16° Gruppo C.T. mit seinem leuchtend dekorierten CR.32 Kampfflugzeug. **37** Ein republikanischer Pilot klettert in sein I-16-Kampfflugzeug. **38** Die 'Patrulla de Toros' in Barcelona mit einer ihrer I-15-Kampfflugzeuge. **39** Republikanischer Scheinwerfer in Barcelona. **40** Mehrere I-152 'Super-Chato'-Kampfflugzeuge auf einem französischen Flughafen nach dem Fall von Barcelona.

41 Bomben werden in eine BR.20 der 35° G.A.M. geladen auf dem Flughafen Tablada; im Hintergrund leichte Bomber vom Typ Caproni Ca310. **42** Der Bomber Tupolev SB-2 wurde von den Republikanern in grosser Zahl verwendet. Diese Maschinen werden nach der Eroberung gezeigt; das zunächststehende ist in nationalistischen Farben neu gestrichen worden, aber das zweite ist in der Originalausführung. **43** Die italienischen Piloten der Aviacione Legionaria gehen an Bord des Schiffes 'Dulio', um Barcelona zu verlassen (1939). Oben auf der Leiter Maggiore Aldo Remondino, einer der italienischen 'Asse', dessen Flugzeug auf den Seiten 28–29 gezeigt wird.

Farbtafeln

Seite 25: Teniente, Nationalisten-Luftwaffe, im Fluganzug mit Schiffschen des Dienstanzuges. Auf dem roten Tuchstück an der Fliegerjacke Brustseite erscheinen das nationalisten Fliegerabzeichen und zwei Goldsterne (das Dienstgradabzeichen). Die Goldsterne werden auch auf dem Schiffschen getragen.

Seite 26 (Oben): Potez 540, Republikanischen-Luftwaffe. Die Maschine wurde von Capitan Mellado und Teniente Moreno während dem Luftangriff auf das Kriegsschiff *Canarias*, 23 September 1936 geflogen. Das Flugzeug wurde zwei Tage später von Teniente A.S. Larrazabal, in seiner Maschine CR32 No. 103 abgeschossen. Der Wahlspruch, nur auf der Steuerbordseite des Rumpfes getragen, heisst, grob Ubersetzt, 'Ich lauere auf dich hier'.

Seite 26 (Unten): Heinkel He51, Nationalisten-Luftwaffen-Gruppe 1-G-2, in Aragon, Frühling 1938. Deutsche Farbanstrich mit nationalististische Hobeitsabzeichen. Die Ziffer '2' des Gruppentitels (und auf der Maschine) ist die Typennummer der He51, die Ziffer '12' ist die Maschineerkennungsziffer. Das Wappen dieser Schlachtgruppe erscheint auf den Rundkreisen am Rumpf.

Seite 27: Dornier Do17F-1, Aufklärungsgruppe A.88, Legion Condor; Llanes, Oktober 1937. Deutsche Farben: 61 (Braun), 62 (Grün) und 63 (Grau). Eckige Tarnfarbenschema, nationalistische Hoheitsabzeichen. '27' ist die Typennummer der Dornier Do17, dass in Spanien eingesetzt wurde.

Seiten 28–29: Fiat CR.32 No. 854. Sie wurde August 1938 von Major Aldo Remondino, damals Kommandeur der italienischen 23° Gruppo C.T. 'As Kreuz' über Escatron, Teruel geflogen. Italienische Tarnfarbenschema mit nationalistische Embleme. Die weisse Streife, und die auf dem schwarzen Rundkreis angebrachten Wimpel bedeuten 'Gruppenkommandeur'. '3' ist die Fiat Typennummer, '4' die Maschineerkennungsnummer.

Seite 30: Polikarpov I-15 von La Calles Chato Escadron, republikaner Grupo 26; Teruel, April 1937. In denselben Flugzeug am 17 April, hat der americanische Asflieger Teniente Frank Tinker eine He51 der 2-E-2 abgeschossen. Es war sein dritte Luftsieg. Das kleine Bild, dass die Ober-und Unterflächen (durch die Mitte getrennt) zeigt, ist zu beachten.

Seite 31: Staffelembleme (1) Falangistenemblem. Es erchien auf vielen nationalisten Flugzeugrumpfe. (2) Wappen Garcia Moratos 'Blaue Schar' auf den Schwanzflösse CR.32s der 2-G-3, 1937 und 3-G-3, 1938 getragen. (3) 4/J.88, auf dem Rumpf einer He51. (4) K.88, auf dem Rumpf einer He111. (5) 65° Sq. Assalto, auf dem Schwanzfloss einer Breda 65. (6) 8° St. B.V., auf dem Rumpf einer SM.79. (7 und 8) 3ª und 4ª Mosca Escadrilla, auf dem Schwanzfloss einer Polikarpov I-16.

Seite 32 (Links): Alferez (Unterleutnant) der Republikanischen-Luftwaffe in Fluganzug mit Astra automatische Pistole in der Halfter. Dienstgradabzeichenpatte auf der Brust mit Fliegerabzeichen über dem Dienstgradabzeichen. Es ist zu bemerken, dass diese Uniform sehr Marine-ähnlich ist. **Seite 32 (Rechts):** Oberleutnant (Pilot), Legion Condor, 1939. Die silbernen Mützenbesatzstreife bedeutet 'Offizier'. Die drei silbernen, gelbumrandeten Sterne bedeuten Oberleutnant. Die gelbe Umrandung ist die Farbe der Fliegerbranche. Auf der Brust die nationalisten Fliegerabzeichen, darunter das 'Spanische Kreuz', ein deutsche Orden, 1939 verliehen.

AIRCAM/**AIRWAR**

A series of books written and illustrated by leading military aviation specialists, building into a connected history of the operations of the world's major combat air forces – the men, the missions, the machines, the markings.

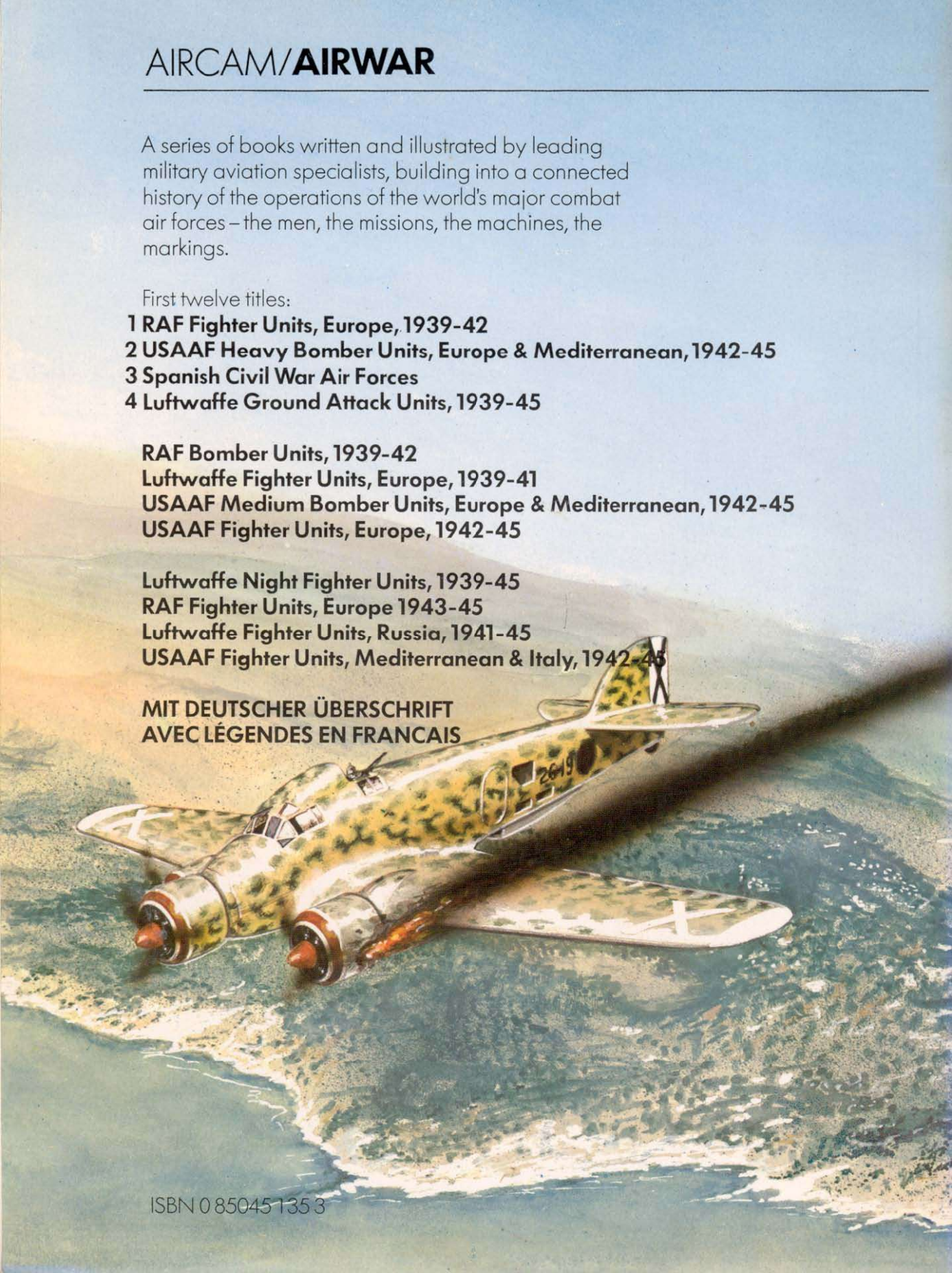
First twelve titles:

1 RAF Fighter Units, Europe, 1939-42
2 USAAF Heavy Bomber Units, Europe & Mediterranean, 1942-45
3 Spanish Civil War Air Forces
4 Luftwaffe Ground Attack Units, 1939-45

RAF Bomber Units, 1939-42
Luftwaffe Fighter Units, Europe, 1939-41
USAAF Medium Bomber Units, Europe & Mediterranean, 1942-45
USAAF Fighter Units, Europe, 1942-45

Luftwaffe Night Fighter Units, 1939-45
RAF Fighter Units, Europe 1943-45
Luftwaffe Fighter Units, Russia, 1941-45
USAAF Fighter Units, Mediterranean & Italy, 1942-45

MIT DEUTSCHER ÜBERSCHRIFT
AVEC LÉGENDES EN FRANCAIS



ISBN 0 85045 135 3